# **INSPECTION DOCUMENT 10**

Date:	
Registration Number:	
Serial Number:	
Total Time:	

#### 1. Description

- A. Inspection Document 10 gives a list of item(s), which are completed at every 800 Hours or 24 calendar months, whichever occurs first.
- B. Inspection items are given in the sequence of the zone in which the inspection is completed. A description of the inspection, as well as the Item Code Number are supplied for cross-reference to section 5-10-01. Frequently, tasks give more information about each inspection. These tasks are found in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. You can use copies of these pages as a checklist while you complete the tasks in this Inspection Document.

#### 2. General Inspection Criteria

- A. As you complete each of the inspection tasks in this Inspection Document, examine the adjacent area while access is available to find conditions that need more maintenance.
- B. If it is necessary to replace a component or to make a change to a system while you complete a task, do the task again before the system or component is returned to service.
- C. Inspection Kits are available for some Inspection Documents. They supply consumable materials used to complete the inspection item(s) given for the interval. Refer to the Model 208 Illustrated Parts Catalog, Introduction, Service Kit List to find applicable part numbers.

ITEM CODE NUMBER	TASK	ZONE	MECH	IN- SP	REMARKS
C221201	Autopilot Servos Lubrication Task 22-12-00-640	226 232			
A245001	Power Distribution Boxes Detailed Inspection Task 24- 50-00-220	121 122			
A251001	Crew Seats Detailed Inspection Task 25-10-00-220	231 232			
A251003	Passenger Seats Detailed Inspection Task 25-21-00-220	231 232			

ITEM CODE NUMBER	TASK	ZONE	MECH	IN- SP	REMARKS
B271001	Spoiler System Functional Check Task 27-10-00-720	211 212 217 218 233 234 253 254 251 252 503 525 603 625			
C271003	Aileron Trim Tab Actuator (2660044-1) Lubrication Task 27-10-02-641	551 571 651 671			
C273001	Elevator Trim Tab Actuator (2660017-1) Lubrication Task 27-30-02-640	371 372 375 376			
B284103	Fuel Quantity and Low Fuel Warning Systems Functional Check Task 28-41-00-720	AUX			
B324001	Brakes Operational Check Task 32-40-00-710	ENG			
B332001	Passenger/Cargo Compartment Lighting Operational Check Task 33-20-00-710	AUX			
A520001	Crew Doors Detailed Inspection Task 52-00-00-220	801 802			
A520003	Passenger/Cargo Doors and Door Frames Detailed In- spection Task 52-00-00-221	255 256 257 258 803 804			
A781001	Primary and Secondary Exhaust Duct General Visual In- spection Task 78-10-00-211	130			
	*** End of Inspection Document 10 Inspection Items ***				

	Tasł	< 22-12-00-640
2.	Auto	opilot Servos Lubrication
	Α.	<ul> <li>General</li> <li>(1) This task gives the procedures to do a lubrication of the Garmin Roll, Pitch, Yaw, and Pitch Trim Servo output gears.</li> </ul>
		<b>NOTE:</b> This task is only applicable for the Model 208 airplanes with the Garmin 1000 and the GFC 700 autopilot system installed.
	В.	Special Tools (1) Aeroshell 33MS Grease (preferred), or Aeroshell 17 Grease.
	C.	<ul> <li>Access <ul> <li>Remove the copilot's seat to get access to the roll servo. Refer to Chapter 25, Flight Compartment - Maintenance Practices.</li> <li>Remove access panel 232DR to get access to the roll servo. Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> <li>Remove the rear compartment partition or unzip the canvas wall to get access to the yaw and pitch servo. Refer to Chapter 25, Rear Compartment Wall - Maintenance Practices .</li> <li>Remove access panels 226A and 226D from the pedestal to get access to the pitch trim servo. Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> </ul> </li> </ul>
	D.	<ul> <li>Do a lubrication of the Autopilot Servos.</li> <li>(1) Remove the roll, pitch, yaw, and pitch trim servos (Refer to GFC 700 Autopilot - Maintenance Practices).</li> </ul>
		<b>CAUTION:</b> Do not use solvents to clean the output gears.
		<ol> <li>Use a lint-free cloth to remove the excess grease build-up from the output gears for the different servos.</li> <li>Apply Aeroshell 33MS (preferred), or Aeroshell 17 grease to the output gear.</li> <li>Install the roll, pitch, yaw, and pitch trim servos (Refer to GFC 700 Autopilot - Maintenance Practices).</li> <li>Operate all of the control surfaces through their full range of travel.</li> <li>Make a maintenance log entry that shows that the GSA 8X servo output gears have been lubricated with Aeroshell 33MS or Aeroshell 17 grease.</li> </ol>
	E.	<ul> <li>Restore Access</li> <li>(1) Install the rear compartment partition or zip the canvas wall. Refer to Chapter 25, Rear Compartment Wall - Maintenance Practices.</li> <li>(2) Install access panels 226A and 226D to the pedestal. Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> <li>(3) Install access panel 232DR . Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> <li>(4) Install the copilot's seat. Refer to Chapter 25, Flight Compartment - Maintenance Practices.</li> </ul>
	End	Task



#### Figure 2. Model 208 Floorboard Access Plates/Panels Identification



#### Task 24-50-00-220

#### 2. Power Distribution Boxes Detailed Inspection

- A. General
  - (1) This task gives the procedures to do a detailed inspection of the power distribution boxes.
- B. Special Tools
  - (1) None
- C. Access
  - (1) Remove the upper left and right cowling doors to get access to the battery and the power distribution boxes. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.

#### D. Do a Detailed Inspection of the Power Distribution Box (Electrical Power). Refer to Figure 601.

- (1) Set the BATTERY switch to the OFF position.
- (2) Remove the external electrical power from the airplane.
- (3) Disconnect the battery terminals.
- (4) Attach a warning tag to the battery and the external power receptacle that have the statement that follows:

# WARNING: Do Not Connect or Apply Electrical Power to the Airplane - Maintenance in Progress.

- (5) Remove the screws that attach the cover to the electrical power distribution box.(a) Remove the cover from the box.
- (6) Examine all electrical components for condition and security.
- (7) Examine all electrical wires and cables for correct routing, support, chafing, and security of the connectors.
- (8) Examine the box and the cover for condition and security.
- (9) Examine the sealant between the box and firewall for condition.
  - If the seal is broken, loose, or deteriorated, replace it with a new fillet seal using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.
- (10) Examine all current limiters for signs of an open link.
  - (a) If the condition is unknown, remove the current limiter(s) and do a resistance test with an ohmmeter.
    - The resistance must be less than 1 ohm.
- (11) Examine the sealant on the firewall electrical connectors for condition.
  - (a) If the seal is broken, loose, or deteriorated, replace it with new silicone sealant (part number Q3-6077). Refer to Chapter 20, Electrical Bonding Maintenance Practices.
- (12) Put the cover in its position on the electrical power distribution box.
  - (a) Install the screws.
- E. Do a Detailed Inspection of the Power Distribution Box (Standby Electrical Power). Refer to Figure 602.
  - (1) Remove the screws that attach the cover to the standby electrical power distribution box.
     (a) Remove the cover from the box.
  - (2) Examine the box and the cover for condition and security.
  - (3) Examine all electrical components for condition, contamination, and security.
    - (a) If there are signs of contamination, remove the contamination and apply Type II, Class B-4 sealant across the top of the cover and the relay base assembly. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.
  - (4) Examine all electrical wires and cables for correct routing, support, chafing, and security of the connectors.
  - (5) Examine the current limiters for signs of an open link.
    - (a) If the condition is unknown, remove the current limiter(s) and do a resistance test with an ohmmeter.
      - 1 The resistance must be less than 1 ohm.

- (6) Examine the sealant between the base of the box and the firewall for condition.
  - (a) If the seal is broken, loose, or deteriorated, replace it with a new fillet seal using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.
- (7) Put the cover in its position on the standby electrical power distribution box.
  - (a) Install the screws.
- (8) Apply a new fillet seal between the cover and the base using Type II, Class B-4 sealant. Refer to Chapter 20, Fuel, Weather and High-Temperature Sealing - Maintenance Practices.
- (9) Remove the warning tag from the battery and the external power receptacle.
- (10) Connect the battery.

#### F. Restore Access

(1) Install the upper left and right cowling doors. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.





Task	25-1	0-00-220
Crew	Sea	ts Detailed Inspection
A.	Gene (1)	eral This task gives the procedures to do a detailed inspection of the crew seats.
В.	Spec (1)	ial Tools None
C.	Acce (1)	ss None
D.	Do a (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (14) (15) (16) (17) (18) (19) (20) (21)	<ul> <li>Detailed Inspection of the Crew Seats.</li> <li>Remove the crew seats from airplane. Refer to Flight Compartment - Maintenance Practices.</li> <li>Examine the crew seat assembly for rips, tears, cleanliness, security of attached components, and other signs or damage.</li> <li>Examine the crew seat headrest and armrest assemblies (if equipped) for security and correct movement.</li> <li>Examine the seat belts, shoulder straps, restraint straps, and retainers for security of installation, rips, cuts, tears, frayed edges, cleanliness, and general condition.</li> <li>(a) Replace frayed and/or cut belts.</li> <li>Examine all belts for legibility of the certification label.</li> <li>Examine the bulk length adjustments for correct operation.</li> <li>Examine the bulk assemblies for security and damage.</li> <li>Examine the buck assemblies for signs of wear, cleanliness, security, and general condition.</li> <li>Examine the buck assemblies for security and general condition.</li> <li>Examine the inertia reels for security and general condition.</li> <li>Examine the inertia reels for security and general condition.</li> <li>Examine the inertia reel for freedom and smoothness of operation by slowly pulling out on the shoulder harness belt.</li> <li>(a) Make sure that the shoulder harness belt retracts onto the inertia reel when it is released.</li> <li>Pull the shoulder harness belt out quickly from the inertia reel and make sure that the inertia reel locks.</li> <li>(a) Make sure that the locking mechanism releases when the shoulder harness is relaxed.</li> <li>Turm the seat adjustment levers and jackscrews for freedom and smoothness of operation.</li> <li>Examine the seat adjustment levers and jackscrews for freedom and smoothness of operation.</li> <li>Examine the seat release mechanism for freedom and smoothness of operation.</li> <li>Examine the seat release mechanism for freedom and smoothness of operation.</li> <li>Examine the seat release mechanism for freedom and smoothness of operation.</li> <li>Examin</li></ul>
E.	Rest (1)	ore Access None

**End Task** 

3.

	Task	< 25-21-00-220
2.	Pase	senger Seats Detailed Inspection
	Α.	General (1) This task gives the procedures to do a detailed inspection of the passenger seats.
	В.	Special Tools (1) None
	C.	Access (1) None
	D.	<ul> <li>Do a Detailed Inspection of the Passenger Seats.</li> <li>(1) Examine all passenger seat assemblies for rips, tears, cleanliness, security of attached components, and other signs or damage.</li> <li>(2) Examine the seat belts, shoulder straps, restraint straps, and retainers for security of installation, rips, cuts, tears, frayed edges, cleanliness, and general condition. <ul> <li>(a) Replace frayed and/or cut belts.</li> </ul> </li> <li>(3) Examine all belts for legibility of the certification label.</li> <li>(4) Examine all belt for legibility of the certification label.</li> <li>(5) Examine all belt attach points for security and damage.</li> <li>(6) Examine the buckle assemblies for signs of wear, cleanliness, security, and general condition.</li> <li>(7) Examine the belt latching mechanism for correct operation.</li> <li>(8) Examine the seat belt inertia reels for security and general condition.</li> <li>(9) Check the inertia reel for freedom and smoothness of operation by slowly pulling out on the shoulder harness belt. <ul> <li>(a) Make sure that the shoulder harness belt retracts onto the inertia reel when it is released.</li> </ul> </li> <li>(10) Pull the shoulder harness belt out quickly from the inertia reel and make sure that the inertia reel locks. <ul> <li>(a) Make sure the locking mechanism releases when the shoulder harness is relaxed.</li> </ul> </li> <li>(11) Examine the seat rails for cleanliness, cracks, corrosion, and signs of damage.</li> </ul>
	End	IASK

#### Task 27-10-00-720

#### 2. Spoiler System Functional Check

- A. General
  - (1) This task gives the procedures to do a functional check of the spoiler system.
- B. Special Tools
  - (1) Inclinometer
  - (2) Cable Tensiometer
- C. Access
  - (1) Remove the applicable wing panels to get access to spoiler components, Refer to Chapter 6, Access Plates and Panels Identification Description and Operation.
  - (2) Open (unzip) the fabric headliner (passenger) or remove the hard shelled headliner (cargo) to get access to the spoiler components. Refer to Chapter 25, Cabin Upholstery - Maintenance Practices.
- D. Do a functional check of the spoiler system.
  - (1) Do a check of the cable movement for binding and full travel.
  - (2) Examine the spoiler skins for loose rivets and cracks.
  - (3) Examine the hinges for corrosion, condition, and cracks.
    - (a) Examine the bearings and bonding jumpers for signs of damage or wear, unserviceable fasteners, and security of installation.
  - (4) Examine the bolts and nuts at both ends of pushrods for correct cotter pin installation.
    - **CAUTION:** If the pushrod will not turn using hand force, remove the rod end attach bolt and examine for cause. Make sure that the rod ends are aligned to let the rod turn a small amount when installed (vertical plane of each rod end in-line with each other).
  - (5) Examine the aileron/spoiler bellcrank tubes, bearings, pushrods, stop bolts, and brackets for corrosion, cracks, signs of damage, failed fasteners, security of installation, and correct safetying.
  - (6) Examine the attachment brackets on each spoiler for corrosion, condition, cracks, security, and correct attachment of the cable to the bracket.
- E. Do a spoiler rigging check on the left and the right spoilers.
  - (1) With the flaps at the full up position, slowly turn the control wheel and examine for a minimum of 0.010 inch (0.254 mm) to a maximum of 0.030 inch (0.762 mm) clearance between spoiler trailing edge and the top surface of the flap at the minimum position. This will occur before the aileron reaches the full down position.
  - (2) With the aileron at the neutral position, install an inclinometer on left spoiler and adjust it to zero.
  - (3) Install a rig pin in the upper quadrant and the lower quadrant.
  - (4) With the ailerons held in the neutral position, and flaps fully retracted, make sure that the trailing edge of the spoiler is 0.55 inch +0.05 or -0.05 inch (13.97 mm +1.27 or -1.27 mm) above the surface of the flap at the outboard end of the spoiler.
  - (5) Remove the rig pins from the upper quadrant and the lower quadrant.
  - (6) Use the control wheel to raise the left spoiler to its full up position.
  - (a) The inclinometer must read 40 +5 or -5 degrees.
  - (7) With the aileron at the neutral position, install an inclinometer on the right spoiler and adjust it to zero.
  - (8) Use the control wheel to raise the right spoiler to its full up position.
    - (a) The inclinometer must read 40 +5 or -5 degrees.
      - **NOTE:** If the system is found to be out of tolerance, perform all adjustments, Refer to Aileron and Spoiler Maintenance Practice. Include aileron friction band check. Ensure all rigging pins are removed after this task is complete.

F. Restore access.

- (1) Install the applicable panels and covers that were removed to get access to the spoiler components on both wings. Refer to Chapter 6, Access Plates and Panels Identification Description and Operation.
- (2) Close (zip) the fabric headliner (passenger) or install the hard shelled headliner (cargo). Refer to chapter 25, Cabin Upholstery Maintenance Practices.

	Tasl	k 27-10-02-641
4.	Aile	ron Trim Tab Actuator (2660044-1) Lubrication
	Α.	General (1) This task gives the procedures to do the aileron trim tab actuator (2660044-1) lubrication.
	В.	Special Tools (1) Grease
	C.	Access (1) None
	D.	<ul> <li>Do the Aileron Trim Tab Actuator (2660044-1) Lubrication (Refer to Figure 202 found in Aileron Trim System - Maintenance Practices).</li> <li>(1) Remove the aileron trim tab actuator from the airplane and put it on a bench. Refer to Aileron Trim System - Maintenance Practices.</li> <li>(2) Disassemble the aileron trim tab actuator. Refer to Aileron Trim System - Maintenance Practices.</li> <li>(3) Do the Inspection and Repair of Aileron Trim Tab Actuator. Refer to Aileron Trim System - Maintenance Practices.</li> <li>(4) Do the lubrication and the assembly steps found in Lubrication and Assembly of Aileron Trim Tab Actuator (Airplanes with 2660044-1 Trim Tab Actuator Installed). Refer to Aileron Trim System - Maintenance Practices.</li> <li>(5) Install the aileron trim tab actuator in the airplane. Refer to Aileron Trim System - Maintenance Practices.</li> </ul>
	E.	Restore Access (1) None
	End	Task



















	Tasl	k 27-30-02-640
3.	Elev	rator Trim Tab Actuator (2660017-1) Lubrication
	Α.	General (1) This task gives the procedures to do the elevator trim tab actuator (2660017-1) lubrication.
	В.	Special Tools (1) Grease
	C.	Access (1) None
	D.	<ul> <li>Do the Elevator Trim Tab Actuator (2660017-1) Lubrication (Refer to Figure 202 found in Elevator Trim - Maintenance Practices).</li> <li>(1) Remove the elevator trim tab actuator from the airplane and put it on a bench. Refer to Elevator Trim - Maintenance Practices.</li> <li>(2) Disassemble the elevator trim tab actuator. Refer to Elevator Trim - Maintenance Practices.</li> <li>(3) Do the Elevator Trim Tab Actuator Inspection/Repair. Refer to Elevator Trim - Maintenance Practices.</li> <li>(4) Do the lubrication and the assembly steps found in Elevator Trim Tab Actuator Lubrication and Assembly (Airplanes with 2660017- 1 Trim Tab Actuator Installed). Refer to Elevator Trim - Maintenance Practices.</li> <li>(5) Install the elevator trim tab actuator in the airplane. Refer to Elevator Trim - Maintenance Practices.</li> </ul>
	E.	Restore Access (1) None
	End	Task















#### Task 28-41-00-720

- 3. Fuel Quantity and Low Fuel Warning Systems Functional Check
  - A. General
    - (1) This task gives the procedures to do a functional check of the fuel quantity and low fuel warning systems.
  - B. Special Tools
    - (1) Ground Electrical Power Unit
    - (2) Digital Ohm Meter
    - (3) 230-Ohm Dummy Load

#### C. Access

- (1) Remove access panels 511AB and 611AB from bottom of wings. Refer to Chapter 6, Access Plates and Panels Identification Description and Operation.
- D. Do a Functional Check of the Fuel Quantity and Low Fuel Warning Systems (Non-Garmin Equipped).

**CAUTION:** When you do the resistance tests of the fuel quantity wiring or the fuel probe transmitters, use a digital ohmmeter only. Some analog ohmmeters can introduce high current, which will make the fuel probe transmitters unserviceable.

**NOTE:** Always use a screwdriver with an insulated shank when calibrating the fuel system.

- (1) Make sure that the airplane is in a level condition. Refer to Chapter 8, Leveling Maintenance Practices.
- (2) Make sure that the airplane is correctly grounded. Refer to Chapter 12, Fuel Servicing.
- (3) Connect external electrical power to the airplane.
- (4) Disengage the AUX FUEL PUMP circuit breaker.
- (5) Set the external power switch to BUS.
- (6) Set the battery switch to ON.
- (7) De-fuel the airplane. Refer to Chapter 12, Fuel Servicing.
  - (a) Make sure that the amber LEFT FUEL LOW and RIGHT FUEL LOW annunciator panel lights come on when approximately 25 +/-5 gallons (170 +/- 33.5 lbs.) of fuel remains in the related main fuel tank.
- (8) When all fuel is drained (except unusable) from the wing tanks, position both fuel selector valves to OFF.
- (9) Fully drain the reservoir tank until it is empty.
- (10) Make sure that each fuel quantity gage needle is fully in the empty red zone.
  - (a) If necessary, carefully adjust the null trimpot on each fuel quantity gage so that the needle is fully in the empty red zone.
- (11) Set the external power switch to OFF.
- (12) Set the battery switch to OFF.
- (13) Find and disconnect the electrical wire from the center post of the inboard fuel transmitter on one wing.
- (14) Install a 230-ohm dummy load between this wire and airplane ground.
- (15) Set the external power switch to BUS.
- (16) Set the battery switch to ON.
- (17) Carefully adjust the gain trimpot on the fuel gage to put the needle to the center of the 1100 pound mark for the wing being checked.
- (18) Set the external power switch to OFF.
- (19) Set the battery switch to OFF.
- (20) Remove dummy load and connect electrical wire to center post of inboard fuel level transmitter.
- (21) Do the steps again for the opposite wing.
  - (a) If necessary, adjust the null and the gain trimpots again until the left and the right fuel gage low end setting reads zero and the high end setting reads 1100 pounds.

- (22) Set the external power switch to BUS.
- (23) Set the battery switch to ON.
- (24) Make sure that the LEFT FUEL LOW, RIGHT FUEL LOW, and RESERVOIR LOW annunciator panel lights are on.
  - (a) If any of the lights are not on, do a continuity check of the circuit and replace the bulbs if necessary.
- (25) Fill each wing fuel bay with 20 gallons of measured fuel, then continue to add fuel, if necessary until each bay contains 30 gallons of fuel.
  - (a) Make sure that the LEFT and the RIGHT annunciator lights go off between the 20 and 30 gallon levels.
    - If one or both lights do not go off, replace the applicable low fuel level switches.
       Refer to Fuel Quantity Indicating Systems Maintenance Practices.
- (26) Set both fuel selector valves ON until the RESERVOIR LOW light turns off, then position both fuel selector valves OFF.
- (27) Slowly drain the fuel from the reservoir until the Reservoir Low light turns ON.
- (28) Drain the remaining fuel from the reservoir and measure the quantity.
  - (a) Make sure that the measurement is from 1.95 to 2.15 gallons.
    - (b) If quantity of measured fuel is more than 2.25 gallons, or is less than 1.75 gallons, remove and replace the reservoir fuel low level switch. Refer to Fuel Quantity Indicating Systems - Maintenance Practices.
- (29) Fill both tanks to the full capacity. Refer to Chapter 12, Fuel Servicing.
- (30) Make sure that the indication on both fuel gages is FULL.
- (31) Set the external power switch to OFF.
- (32) Set the battery switch to OFF.
- (33) Engage the AUX FUEL PUMP circuit breaker.
- (34) Remove the external electrical power unit from the airplane.
- (35) Remove the grounding wire from the airplane.
- E. Do a Functional Check of the Fuel Quantity and Low Fuel Warning Systems (Garmin equipped airplanes with CAN bus type fuel level sensors).
  - **NOTE:** All G1000 aircraft must have software version 0767.00 or later. The software version is shown on the upper right corner of the MFD on the first page shown after the MFD is powered on in normal operation.
  - **NOTE:** If the fuel quantity indicator on the Garmin G1000 system has a red X on it during normal operation, examine the fuel quantity sensors and wiring and refer to the Garmin G1000 Line Maintenance Manual for more Garmin system troubleshooting. If the values given on the PFD are not the same as the values given in the calibration procedure, refer to the Garmin G1000 Line Maintenance Manual for troubleshooting.
  - Make sure that the airplane is in a level condition. Refer to Chapter 8, Leveling Maintenance Practices.
  - (2) Make sure that the airplane is correctly grounded. Refer to Chapter 12, Fuel Servicing.
  - (3) Connect external electrical power to the airplane.
  - (4) Disengage the AUX FUEL PUMP circuit breaker.
  - (5) Set the external power switch to BUS.
  - (6) Set the battery switch to ON.
  - (7) Set the AVIONICS 1 and AVIONICS 2 switches to ON.
  - (8) Defuel the airplane. Refer to Chapter 12, Fuel Servicing.
    - (a) Make sure that the amber L-R FUEL LEVEL LOW CAS message comes on when approximately 25 +/-5 gallons (170 +/- 33.5 lbs.) of fuel remains in the related main fuel tank.
  - (9) When the fuel is fully drained from the wing tanks (except unusable), set both fuel selector valves to OFF.
  - (10) Fully drain the reservoir tank.
  - (11) Make sure that the Fuel Quantity Indications (MFD Engine and System displays) are zero (analog pointers and digital indications).

- (a) If there is not a zero indication, do a Fuel Quantity System Calibration (Airplanes with CAN bus type fuel level sensors). Refer to Fuel Tanks Adjustment/Test.
- (12) Add or remove the fuel quantities shown in the "Fuel Qty" column of Table 601, for both the left (L) and the right (R) wing fuel tanks and make sure that you have the correct values.
  - **NOTE:** The value listed in the "fuel qty" column is the amount of fuel to add (positive values) or remove (negative values), such that it increases or decreases the existing fuel level in the tank by that amount; each row must be completed and verified separately before you go to the next row.

Fuel Qty CAS Annunciation (col-Tank (L/R) **EIS Parameter Display Value** (gal) or) L Fuel Qty Scale/Pointer (Analog) (Amber/Amber < 200 lbs Background) +20 L-R FUEL LOW - Amber L QTY L LBS (Digital) (Am-134\* (Theoretical) ber Background) L Fuel Qty Scale/Pointer < 200 lbs (Analog) L +8# R FUEL LOW - Amber QTY L LBS (Digital) 175\* R Fuel Qty Scale/Pointer (Analog) (Amber/Amber < 200 lbs Background) R +20 R FUEL LOW - Amber QTY R LBS (Digital) (Am-134\* (Theoretical) ber Background) R Fuel Qty Scale/Pointer Approx. 200 lbs (Analog) R +10 None 200\* QTY R LBS (Digital) L Fuel Qty Scale/Pointer (Analog) (Amber/Amber < 200 lbs Background) -4\*\* L FUEL LOW - Amber QTY L LBS (Digital) (Am-150\* ber Background)

Table 601. Fuel Data Verification

Tank (L/R)	Fuel Qty (gal)	EIS Parameter	CAS Annunciation (col- or)	Display Value		
		L-R Fuel Qty Scale/Pointer (Analog)		Approx. 200 lbs		
L	<del>***</del>	QTY L LBS (Digital) QTY R LBS (Digital)	none	200*		
L/P	+50	L-R Fuel Qty Scale/Pointer (Analog)	Nono	400-600 lbs		
L/R	+50 QTY L LBS (Digital) QTY R LBS (Digital)		inone	536* (Theoretical)		
L/P	150	L-R Fuel Qty Scale/Pointer (Analog)	None	800-1000 lbs		
L/R	+30	QTY L LBS (Digital) QTY R LBS (Digital)		871* (Theoretical)		
L	F	L Fuel Qty Scale/Pointer (Analog)	None	Full		
		QTY L LBS (Digital)		1100		
R	F	R Fuel Qty Scale/Pointer (Analog)	None	Full		
		QTY R LBS (Digital)		1100		

- \* Tolerance +/- 75 lbs.
- \*\* Remove fuel by draining into reservoir tank (approx. 4 gallons) as follows: Set the Left Fuel Selector to ON; Make sure that the "RSVR FUEL LOW" red CAS annunciation goes off; set the Left Fuel Selector to OFF.
- # You can add 2 more gallons (10 gal total) if the "R FUEL LOW" amber CAS annunciation does not show. Digital display value must show 200\*, if 10 gallons is added.
- ## Add (14 X) gallons, where X is the number of gallons added in the second step (row 2 of table).
- (13) Set the AVIONICS 1 and AVIONICS 2 switches to OFF.
- (14) Set the external power switch to OFF.
- (15) Set the battery switch to OFF.
- (16) Engage the AUX FUEL PUMP circuit breaker.
- (17) Remove the external electrical power from the airplane.
- (18) Remove the grounding wire from the airplane.

# F. Restore Access

(1) Install lower wing access panels 511AB and 611AB. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.





	Task 32-40-00-710		
<b>)</b> .	Bral	kes Operational Check	
	Α.	General (1) This task gives the procedures to do an operational check of the brakes.	
	В.	Special Tools (1) None	
	C.	Access (1) None	
	D.	<ul> <li>Do an Operational Check of the Brakes.</li> <li>(1) Move the airplane to the parking ramp.</li> <li>(2) Set the parking brake. The parking brake must lock without more than necessary tension on the control and hold and release freely.</li> </ul>	
		<b>NOTE:</b> Brake checks must include both pilot and copilot positions.	
		<ul> <li>(3) Start the engine and obey all operating limitations. Refer to Pilot's Operating Handbook and Approved Flight Manual.</li> <li>(4) Release the parking brake.</li> <li>(5) Taxi the airplane.</li> <li>(6) Apply pressure to the pilot's brakes.</li> </ul>	
		<ul> <li>(a) Make sure that the brakes do not drag, fade, or bypass fluid.</li> <li>(b) Make sure that the pedals do not oscillate from a warped or incorrectly aligned disc.</li> <li>(7) Apply pressure to the copilot's brakes.</li> <li>(a) Make sure that the brakes do not drag, fade, or bypass fluid.</li> </ul>	
		<ul> <li>(b) Make sure that the pedals do not oscillate from a warped or incorrectly aligned disc.</li> <li>(8) Shut down the engine. Refer to Pilot's Operating Handbook and Approved Flight Manual.</li> </ul>	
	E.	Restore Access (1) None	
	End	l Task	

#### Task 33-20-00-710 2. Passenger/Cargo Compartment Lighting Operational Check A. General This task gives the necessary information to do the operational check of the passenger/cargo (1) compartment lighting system. Special Tools В. (1) None Access C. (1) None D. Do a Detailed Inspection of the Passenger/Cargo Compartment Lighting. Examine all passenger/cargo compartment lighting for condition and correct operation. (1) Examine the overhead reading light assemblies/cargo lighting assemblies, and electrical (2) components for condition, accessible wiring for chafing, routing, and security. Examine all lighting rheostats for condition and security. (3) Do an Operational Check of the Passenger Cargo Compartment Lighting. E. (1) Cabin Lights (without timer) (a) Apply external electrical power to the airplane. Make sure that the CABIN LTS circuit breaker on the J-Box panel in the engine bay is (b) engaged. (c) One at a time, operate the switches that follow: CABIN switch on the LIGHTS control panel in the cockpit Passenger Door Switch (Forward of the Aft Passenger Door) Cargo Door Switch (Forward of the Cargo Door). Make sure that the lights that follow come on and go off when you operate each 1 switch regardless of the other switch positions. Forward Dome Light (Model 208B only) Passenger Cabin Light Passenger Door Light Cargo Door Light (2 light bulbs) Left Wing Courtesy Light Right Wing Courtesy Light. NOTE: One courtesy light is installed under the left wing, and one is installed under the right wing. The lights illuminate the area outside of the airplane adjacent to the crew entry doors. The lights operate in conjunction with the cabin lights and are controlled by the cabin light switch. (d) Set the CABIN switch on the LIGHTS control panel to the OFF position. Seat Belt Sign and No Smoking Sign (2) Make sure that the SEAT BELT SIGN circuit breaker is engaged. (a) Set the SEAT BELT switch on the LIGHTS control panel to the ON position. (b) Make sure that the Seat Belt sign comes on. (c) Set the SEAT BELT switch on the LIGHTS control panel to the OFF position. (d) Set the NO SMOKE switch on the LIGHTS control panel to the ON position. (e) Make sure that the No Smoking sign comes on. (f) Set the NO SMOKE switch on the LIGHTS control panel to the OFF position. (g) Cabin Lights with timer (all cargo airplanes, and passenger airplanes if a timer is installed). (3) Make sure that the CABIN LTS circuit breaker on the J-Box panel in the engine bay is (a) engaged.

(b) Set the CABIN switch on the LIGHTS control panel to the ON position and make sure that the following lights operate correctly:

- **NOTE:** One courtesy light is installed under the left wing, and one is installed under the right wing. The lights illuminate the area outside of the airplane adjacent to the crew entry doors. The lights operate in conjunction with the cabin lights and are controlled by the cabin light switch.
- 1 Forward Cabin Light (Model 208B only)
- <u>2</u> 3 Main Cabin Light
- Cargo Door Light (2 light bulbs)
- 4 Cabin Light opposite cargo door
- 5 Left Wing Courtesy Light
- 6 Right Wing Courtesy Light
- Do the following checks: (c)
  - The momentary CABIN lights switch controls all lights regardless of the position of the cargo door light switch and the passenger door light switch, if installed.
  - On passenger airplanes, the passenger door light switch controls all lights except 2 the cargo door light, and the cargo door light switch controls the cargo door light only.
  - 3 On cargo airplanes, the cargo door light switch controls all lights.
  - Keep any of the lights on, and make sure that the timer shuts off those lights after 4 approximately 30 minutes.
- Reading Lights (passenger airplanes) (d)
  - Make sure that the RDNG LIGHT circuit breaker is engaged.
  - Make sure that each of the eight (Model 208) or the 14 (Model 208B) reading lights 2 can be switched on and off with their own switch.
- Disconnect the external electrical power from airplane. (e)

**Restore Access** F.

None (1)

	Tas	k 52-00-00-220			
2.	Cre	ew Doors and Crew Door Entrance Steps Detailed Inspection			
	A.	General (1) This task gives the information needed to do a detailed inspection of the crew doors and the crew door entrance steps.			
	В.	Special Tools (1) Dry Solid Film Lubricant (MIL-L-23398) (2) Isopropyl Alcohol			
	C.	<ul> <li>Access</li> <li>(1) Remove the left and the right crew door upper and lower interior panels. Refer to Crew Door - Maintenance Practices.</li> <li>(2) Remove floorboard access panels 231AL, 231CL, 232AR, and 232AC that are adjacent to the crew ladder mounting brackets. Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> </ul>			
	D.	<ul> <li>Do a Detailed Inspection of the Crew Doors and Crew Door Entrance Steps between FS 128.00 to FS 166.45.</li> <li>(1) Examine the crew door external panel surface for condition, cracks, corrosion, delamination, and security.</li> <li>(2) Examine the areas around the door frame, door hinges hinge pin and attach screws for condition, corrosion, security, and correct attachment.</li> <li>(3) Examine the crew door latch mechanism assembly for condition, corrosion, security, and correct attachment.</li> <li>(a) Make sure that you examine the door handle, roll pin, escutcheon, handle support, and lock pin.</li> <li>(b) Make sure that you examine the bell crank, bell crank bushing, bell crank pin, and door handle spindle.</li> <li>(c) Make sure that you examine the pushrod assembly, clevis, latch bolt, and latch bolt spring</li> </ul>			
		<ul> <li>(4) Examine the crew door entrance step assembly for condition, corrosion, and security of assembly to the floor.</li> <li>(5) Examine the upper arm attachments to the floor mounting brackets for condition and security.</li> <li>(a) Examine the bushings for wear.</li> <li>(b) Examine the ladder mounting bracket attach structure for condition, cracks, buckling, bending, and corrosion.</li> <li>(7) Examine the lower arm mount points for condition and security.</li> <li>(a) Examine the bushings for wear.</li> <li>(b) Examine the bushings for wear.</li> <li>(c) Examine the step anti-skid material for condition and security.</li> <li>(a) Examine the step anti-skid material for condition and security.</li> <li>(b) Examine the arm rest pad for correct installation, security, cuts, abrasions, and wear.</li> <li>(a) Clean the door seals with a cloth slightly dampened with water or isopropyl alcohol.</li> <li>(11) Examine the door lock assembly for condition, wear, and security.</li> <li>(a) Lubricate the locking mechanism with Moly Sulfide or an equivalent lubricant.</li> <li>(b) Lubricate any pivot point or sliding surface with MIL-L-23398 before you install the crew door interior panels.</li> </ul>			
	E.	<ul> <li>Restore Access</li> <li>(1) Install floorboard access panels 231AL, 231CL, 232AR, and 232AC. Refer to Chapter 6, Access/Inspection Plates - Description and Operation.</li> <li>(2) Install the left and the right crew door upper and lower interior panels. Refer to Crew Door - Maintenance Practices.</li> </ul>			



#### Figure 2. Model 208 Floorboard Access Plates/Panels Identification

	Task	c 52-0	0-00-221
3.	Pase	senge	r/Cargo Doors and Door Frames Detailed Inspection
	Α.	Gene (1)	eral This task gives the information needed to do a detailed inspection of the passenger and cargo doors and door frames.
	В.	Spec (1)	ial Tools None
	C.	Acce (1) (2)	ss Remove the upper and the lower passenger door interior panels. Refer to Passenger Doors - Maintenance Practices. Remove the upper and the lower cargo door interior panels. Refer to Cargo Doors - Maintenance Practices.
	D.	Do a Mode (1)	Detailed Inspection of the Passenger Door Assembly between FS 234.00 to FS 284.00 for the el 208 and FS 282.00 to 332.00 for the Model 208B. Examine the upper and lower passenger doors for condition, cracks, corrosion, delamination, and security. <b>CAUTION:</b> Do not apply too much torque to any of the attaching hardware to
			the doors. Too much torque can strip the threaded inserts.
		(2)	Examine the passenger door frames and hinge areas for condition, cracks, and corrosion.
		WA	RNING: If the upper and lower gas cylinders are removed at the same time, do not interchange the upper and lower cylinders. Severe injury and damage to the airplane could occur.
		(3)	Examine the upper door spring gas cylinders for condition and security.
		(4)	<ul> <li>Examine the lower door gas spring cylinders for condition and security.</li> <li>(a) Make sure that the cylinders cushion the lower door when the door is released to free-fall from the closed position.</li> </ul>
		(5)	<ul><li>Examine all four restraint cables for condition and security.</li><li>(a) Look closely for broken cable strands in the area where the cable comes out of the clevis and</li></ul>
		(6)	Examine the entrance step assembly for condition, corrosion, security, and wear. (a) If the step anti-skid material is worn, replace the material.
		(7)	<ul> <li>Examine the lower cables for correct adjustment.</li> <li>(a) Both cables must carry all of the load of the lower door when the door is open.</li> <li>(b) The gas cylinders must not be fully extended</li> </ul>
		(8)	Examine the cargo upper door external panel surface, upper door hinge and the fuselage door frame and hinges for condition, correction, security, and correct attachment
		(9)	<ul> <li>Examine the upper door latch mechanism assembly to include the following:</li> <li>(a) Door handle, roll pin, escutcheon, handle support, and lock pin for condition, corrosion, security, and correct attachment.</li> </ul>
			<ul> <li>(b) Bell crank, bell crank bushing, bell crank pin, and door handle spindle for condition, corrosion, security, and correct attachment.</li> <li>(c) Pushrod assemblies, clevis, latch bolt, and latch bolt spring for condition, corrosion, security, and correct attachment</li> </ul>
		(10)	<ul> <li>Examine the lower door latch mechanism assembly to include the following:</li> <li>(a) Door handle, roll pin, escutcheon, handle support, and lock pin for condition, corrosion, security, and correct attachment.</li> <li>(b) Bell crank, bell crank bushing, bell crank pin, and door handle spindle for condition,</li> </ul>
		(11)	<ul> <li>corrosion, security, and correct attachment.</li> <li>(c) Pushrod assemblies, clevis, latch bolt, and latch bolt spring for condition, corrosion, security, and correct attachment.</li> </ul>

(11) Examine the door lock assembly for condition, wear, and security.

- (a) Lubricate the locking mechanism with Moly Sulfide or an equivalent lubricant.
- (12) Examine the door seals for correct installation, security, cuts, abrasions, and wear.
  - (a) Clean the door seals with a cloth slightly dampened with water or isopropyl alcohol.
- E. Do a Detailed Inspection of the Cargo Door Assembly between FS 234.00 to FS 284.00 for the Model 208 and FS 282.00 to 332.00 for the Model 208B.
  - (1) Examine the upper and the lower cargo doors for condition, cracks, corrosion, delamination, and security.

**CAUTION:** Do not apply too much torque to any of the attaching hardware to the doors. Too much torque can strip the threaded inserts.

- (2) Examine the upper and the lower cargo door hinges for condition, corrosion, security, and correct installation.
- (3) Examine the cargo door frames for cracks.
- (4) Examine the upper cargo door spring gas cylinders for condition and security.
- (a) Make sure that the upper door will hold in the open position.
- (5) Examine the upper cargo door restraint cables for condition and security.
   (a) Look closely for broken cable strands in the area where the cable comes out of the clevis end.
- (6) Examine the areas around the door hinges and the door handle, hinge pin, and attach screws for condition, corrosion, security, and correct attachment.
- (7) Examine the upper door latch mechanism assembly to include the following:
  - (a) Door handle, roll pin, escutcheon, handle support, and lock pin for condition, corrosion, security, and correct attachment.
  - (b) Bell crank, bell crank bushing, bell crank pin, and door handle spindle for condition, corrosion, security, and correct attachment.
  - (c) Pushrod assemblies, clevis, latch bolt, and latch bolt spring for condition, corrosion, security, and correct attachment.
- (8) Examine the lower cargo door latch mechanism assembly to include the following:
  - (a) Door handle, roll pin, escutcheon, handle support, and lock pin for condition, corrosion, security, and correct attachment.
  - (b) Bell crank, bell crank bushing, bell crank pin, and door handle spindle for condition, corrosion, security, and correct attachment.
  - (c) Pushrod assemblies, clevis, latch bolt, and latch bolt spring for condition, corrosion, security, and correct attachment.
- (9) Examine the door lock assembly for condition, wear, and security.
- (a) Lubricate the locking mechanism with Moly Sulfide or an equivalent lubricant.
- (10) Examine all door seals for correct installation, security, cuts, abrasions, and wear.
  - (a) Clean all door seals with a cloth slightly dampened with water or isopropyl alcohol.

F. Restore Access

- Install the upper and the lower cargo door interior panels. Refer to Cargo Doors Maintenance Practices.
- (2) Install the upper and the lower passenger door interior panels. Refer to Passenger Doors Maintenance Practices.

	Tasl	k 78-10-00-211
3. Pri		nary and Secondary Exhaust Duct General Visual Inspection
	A.	<ul> <li>General</li> <li>(1) This task gives the procedures to do a general visual inspection of the primary and secondary exhaust duct.</li> </ul>
	В.	Special Tools (1) None
	C.	Access (1) Remove the engine cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
	D.	<ul> <li>Do a Primary and Secondary Exhaust Duct General Visual Inspection.</li> <li>(1) Examine the primary exhaust duct and attach bolts for condition, cracks and corrosion.</li> <li>(2) Examine the secondary exhaust duct, and attach screws.</li> <li>(3) Examine the exhaust deflector and retainer screws.</li> <li>(4) Examine the inboard, center and outboard secondary exhaust hanger brackets.</li> </ul>
		<b>NOTE:</b> Remove the right side lower engine cowl to get access to secondary exhaust.
	E.	Restore Access (1) Install the engine cowling. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
	End	Task