ANEXO 3_ Ed 3 / R0
PRE-FLIGHT INSPECTION

PRE-FLIGHT INSPECTION iaw **AFM D1329-23 TR17**

BLACKHAWK Doc. BRM 11001 "FIELD REPAIR MANUAL FOR CESSNA CARAVAN 208B COMPOSITE ENGINE COWLING WITH BLACKHAWK XP42A UPGRADE".

ICCGDTA-001 – SUPLEMENTO INSPECCIÓN PREVUELO AERONAVE CESSNA C208 S/N 208B1038

TEMPORARY REVISION FOR CESSNA PILOT'S OPERATING HANDBOOK AND FAA APPROVED AIRPLANE FLIGHT MANUAL

Publication Affected:	Model 208B (675 SHP) Serials 208B0179 and 208B0230 and On and Serials 208B0001 thru 208B0178 and Serials 208B0180 thru 208B0229 Modified by SK208-80 basic Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, Revision 23, dated 4 May 2007.
Airplane Serial Numbers Affected:	Airplane Serials 208B0179 and 208B0230 thru 208B1189, 208B1191 thru 208B1215, and 208B1217 thru 208B1999 and Serials 208B0001 thru 208B0178 and Serials 208B0180 thru 208B0229 Modified by SK208-80.
Description of Change:	Section 4, Normal Procedures, Page 4-5 thru 4-14, replace Preflight Inspection Warnings and Preflight Inspection information.
Filing Instructions:	Insert this temporary revision in the Model 208B (675 SHP), Serials 208B0179 and 208B0230 and On and Serials 208B0001 thru 208B0178 and Serials 208B0180 thru 208B0229 Modified by SK208-80, Pilot's Operating Handbook and FAA Approved Airplane Flight Manual adjacent to page 4-4.
Removal Instructions:	This temporary revision must be removed and discarded when Revision 24 has been collated into the basic Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

In Section 4, Normal Procedures, Pages 4-5 thru 4-14, Preflight Inspection Warnings and Preflight Inspection, replace the entire section with the information on the following pages:

APPROVED BY _____

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Textron Aviation Inc.
Organization Delegation Authorization ODA-100129-CE
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL 30 SEPT 2016

NORMAL PROCEDURES

PREFLIGHT INSPECTION WARNINGS

WARNING

- VISUALLY CHECK AIRPLANE FOR GENERAL CONDITION DURING WALK-AROUND INSPECTION AND REMOVE ANY INLET, EXIT OR EXHAUST COVERS. IF CARGO POD IS INSTALLED, CHECK ITS INSTALLATION FOR SECURITY DURING THE WALK-AROUND INSPECTION. USE OF A LADDER WILL BE NECESSARY TO GAIN ACCESS TO THE WING FOR VISUAL CHECKS, REFUELING OPERATIONS, CHECKS OF THE STALL WARNING AND PITOT HEAT SYSTEMS AND TO REACH OUTBOARD FUEL TANK SUMP DRAINS.
- IT IS THE PILOT'S RESPONSIBILITY TO MAKE SURE THAT THE AIRPLANE'S FUEL SUPPLY IS CLEAN BEFORE FLIGHT. ANY TRACES OF SOLID CONTAMINANTS SUCH AS RUST, SAND, PEBBLES, DIRT, MICROBES, AND BACTERIAL GROWTH OR LIQUID CONTAMINATION RESULTING FROM WATER, IMPROPER FUEL TYPE, OR ADDITIVES THAT ARE NOT COMPATIBLE WITH THE FUEL OR FUEL SYSTEM COMPONENTS MUST BE CONSIDERED HAZARDOUS. CAREFULLY SAMPLE FUEL FROM ALL FUEL DRAIN LOCATIONS DURING EACH PREFLIGHT INSPECTION AND AFTER EVERY REFUELING.
- IT IS ESSENTIAL IN COLD WEATHER TO REMOVE EVEN THE SMALLEST ACCUMULATIONS OF FROST, ICE, SNOW, OR SLUSH FROM THE WINGS, TAIL, CONTROL SURFACES, PROPELLER BLADES, AND ENGINE AIR INLETS. EXERCISE CAUTION TO AVOID DISTORTING THE VORTEX GENERATORS (VGs) ON HORIZONTAL STABILIZER (AND WINGS IF EQUIPPED WITH THE OPTIONAL TKS ICE PROTECTION SYSTEM) WHILE DEICING. TO ASSURE COMPLETE REMOVAL OF CONTAMINATION, CONDUCT A VISUAL AND TACTILE INSPECTION OF ALL CRITICAL SURFACES. ALSO, MAKE SURE THAT CONTROL SURFACES CONTAIN NO INTERNAL ACCUMULATIONS OF ICE OR DEBRIS. IF THESE REQUIREMENTS ARE NOT PERFORMED, AIRPLANE PERFORMANCE WILL BE DEGRADED TO A POINT WHERE A SAFE TAKEOFF AND CLIMB OUT MAY NOT BE POSSIBLE.
- PRIOR TO ANY FLIGHT IN KNOWN OR FORECAST ICING CONDITIONS, CHECK THAT PITOT/STATIC TUBE(S) AND STALL WARNING HEATERS ARE WARM TO TOUCH AFTER TURNING PITOT/STATIC AND STALL HEAT SWITCHES ON FOR 30 SECONDS, THEN OFF. MAKE SURE THE PITOT COVERS ARE REMOVED PRIOR TO TURNING PITOT/STATIC HEAT ON.
- IF A NIGHT FLIGHT IS PLANNED, CHECK OPERATION OF ALL LIGHTS, AND MAKE SURE A FLASHLIGHT IS AVAILABLE AND PROPERLY STOWED.

NORMAL PROCEDURES (Continued)

PREFLIGHT INSPECTION

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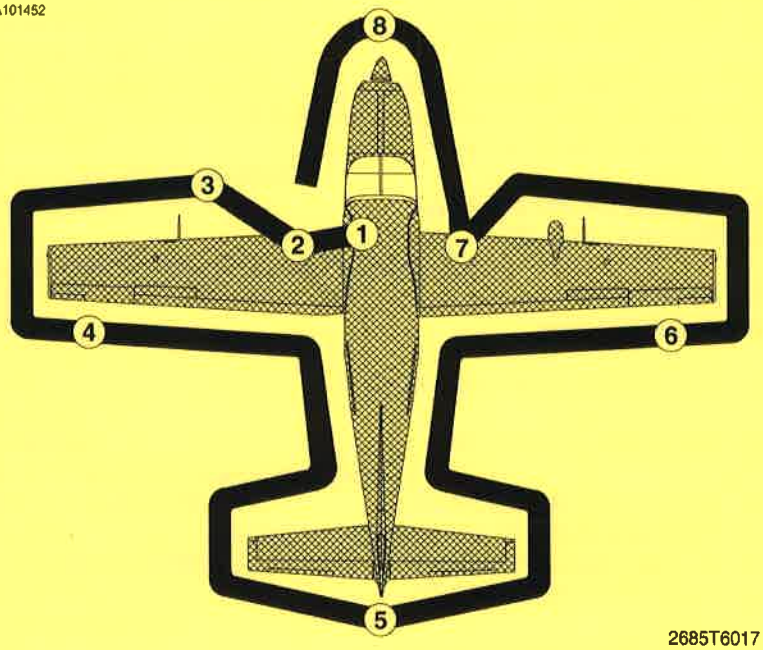

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NOTE

- Visually check airplane for general condition during walk-around inspection. Airplane should be parked in a normal ground attitude, refer to Figure 1-1, to make sure that fuel drain valves allow for accurate sampling. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulations of ice or debris. Prior to flight, check that pitot heater is warm to touch within 30 seconds with battery and pitot heat switches on. If a night flight is planned, check operation of all lights, verify landing/taxi light bulbs are operational and make sure a flashlight is available.
- On airplanes equipped with the optional TKS Ice Protection System it is recommended to open all cockpit, cabin, cargo, and cargo pod doors to ensure maximum ventilation of the cockpit and cabin during preflight when Outside Air Temperatures (OAT) are greater than 15°C (59°F).

Figure 4-1

PREFLIGHT INSPECTION (Continued)

① CABIN

1. Pitot/Static Tube Covers . . . . . **REMOVED**
   (check for pitot blockage)
2. Pilot's Operating Handbook. . . . . **ACCESSIBLE TO PILOT**
3. Other Required Documents. . **AVAILABLE IN THE AIRPLANE**
4. Control Locks (if installed). . . . . **REMOVE**
   (disengage RUDDER LOCK)
5. Airplane Weight and Balance . . . . . **CHECKED**
6. PARKING BRAKE . . . . . **SET**
   (depress brake pedals and pull handle out)
7. All Switches. . . . . **OFF**
8. Circuit Breakers. . . . . **CLOSE**
   (push in)
9. ALT STATIC AIR Control Knob . . . . . **OFF**
   (push in)
10. INERTIAL SEPARATOR . . . . . **NORMAL**
    (push in and rotate clockwise to lock)
11. STBY FLAP MOTOR Switch. . . . . **GUARDED NORM**
12. OXYGEN SUPPLY PRESSURE (if installed) . . . . . **CHECK**
13. Oxygen Masks (if installed). . . . . **CHECK AVAILABLE**
14. FUEL TANK SELECTORS . . . . . **BOTH ON**
    (feel against stop)
15. VENT AIR FANS Control Knobs . . . . . **OFF**
16. Fuel Totalizer (if installed) . . . . . **RESET**
    (as required)
17. Radar (if installed). . . . . **OFF**
18. AIR CONDITIONING Switch (if installed) . . . . . **OFF**
19. INVERTER Switch (if installed). . . . . **OFF**
20. BLEED AIR HEAT Switch . . . . . **OFF**
    (down)
21. EMERGENCY POWER Lever. . . . . **NORMAL**
22. TRIM Controls. . . . . **SET**
23. FUEL SHUTOFF Knob . . . . . **CHECK**
    (verify FULL in)
24. CABIN HEAT FIREWALL SHUTOFF Knob. . . . . **CHECK**
    (push in)

(Continued Next Page)

PREFLIGHT INSPECTION (Continued)

① **CABIN** (Continued)

25. BATTERY Switch . . . . . **ON**
26. AVIONICS 2 Switch . . . . . **ON**
(verify avionics cooling fan are heard)
27. AVIONICS 2 Switch . . . . . **OFF**
28. FUEL QTY . . . . . **CHECK QUANTITY**
29. WING FLAPS Selector . . . . . **FULL DOWN**
30. PITOT/STATIC and
STALL HEAT Switches . . . . . **ON FOR 30 SECONDS; THEN OFF**
(verify pitot/static tube covers are removed)
31. BATTERY Switch . . . . . **OFF**

② **LEFT SIDE**

1. Wing Light. . . . . **CHECK**
(verify condition)
2. Fuel Reservoir Quick Drain Valve (located on bottom of fuselage or left side of cargo pod) . . . . . **DRAIN**

Drain at least a cupful of fuel (using sampler cup) from each sump location to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from **all** fuel drain points until **all** contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

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PREFLIGHT INSPECTION (Continued)

② **LEFT SIDE** (Continued)

3. Main Landing Gear . . . . . **CHECK**
   (check condition of gear and brakes)
4. Main Wheel Tire . . . . . **CHECK**
   [proper inflation and general condition (weather checks, tread depth and wear, etc.)]
5. Inboard Fuel Tank Sump and
   External Sump Quick-Drain Valves . . . . . **DRAIN**
   Drain at least a cupful of fuel (using sampler cup) from each sump location to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from **all** fuel drain points until **all** contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

PREFLIGHT INSPECTION (Continued)

③ LEFT WING Leading Edge

WARNING

- **IT IS ESSENTIAL IN COLD WEATHER TO REMOVE EVEN THE SMALLEST ACCUMULATIONS OF FROST, ICE, SNOW, OR SLUSH FROM THE WING AND CONTROL SURFACES. TO ASSURE COMPLETE REMOVAL OF CONTAMINATION, CONDUCT A VISUAL AND TACTILE INSPECTION UP TO TWO FEET BEHIND THE PROTECTED SURFACES AT ONE LOCATION ALONG THE WING SPAN AS A MINIMUM. ALSO, MAKE SURE THE CONTROL SURFACES CONTAIN NO INTERNAL ACCUMULATIONS OF ICE OR DEBRIS. IF THESE REQUIREMENTS ARE NOT PERFORMED, AIRPLANE PERFORMANCE WILL BE DEGRADED TO A POINT WHERE A SAFE TAKEOFF AND CLIMB MAY NOT BE POSSIBLE.**
- **PRIOR TO ANY FLIGHT IN KNOWN OR FORECAST ICING CONDITIONS, CHECK THAT PITOT/STATIC TUBE(S) AND STALL WARNING HEATERS ARE WARM TO TOUCH AFTER TURNING PITOT/STATIC AND STALL HEAT SWITCHES ON FOR 30 SECONDS, THEN OFF. MAKE SURE THE PITOT COVERS ARE REMOVED PRIOR TO TURNING PITOT/STATIC HEAT ON.**

1. Wing Tiedown . . . . . **DISCONNECT**
2. Stall Warning Vane . . . . . **CHECK**
   (verify freedom of movement, audible warning and warm to the touch)

NOTE

Make sure elevator control is off the forward stop in order to check audible warning.

3. Pitot/Static Tube . . . . . **CHECK**
   (verify security, openings for stoppage and warmth)
4. Landing and Taxi/Recognition Lights . . . . . **CHECK**
   (condition and cleanliness of cover)

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PREFLIGHT INSPECTION (Continued)

③ LEFT WING Leading Edge (Continued)

5. Ice Protection System (if installed)
   AIRPLANES EQUIPPED WITH PNEUMATIC DEICE SYSTEM
   a. Wing Strut and Leading Edge Deice Boots. . . . . **CHECK**
   (for tears, abrasion and cleanliness)
   AIRPLANES EQUIPPED WITH TKS ICE PROTECTION SYSTEM
   a. Wing Strut and Leading Edge Porous Panels. . . . . **CHECK**
   (verify condition and security)

CAUTION

Look for signs of TKS Ice Protection System fluid leakage through bonded area of the porous panels. If TKS Ice Protection System fluid is leaking through the bonded seam do not operate the TKS Ice Protection System.

   b. VGs. . . . . **VERIFY CONDITION AND NUMBER** (10 VGs on wing)
6. Fuel Quantity. . . . . **VISUALLY CHECK**
   Refer to Figure 4-2, Measured Fuel Depth vs. Fuel Quantity chart in this section.
7. Fuel Filler Cap. . . . . **SECURE**

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PREFLIGHT INSPECTION (Continued)

MEASURED FUEL DEPTH VS. FUEL QUANTITY

Universal XL Fuel Gage	Fuel Quantity	
Gage Scale	Gallons	Pounds
0.50	87.4	585
0.75	91.1	610
1.00	94.7	634
1.25	98.2	658
1.50	101.8	682
1.75	105.2	705
2.00	108.6	727
2.25	111.9	750
2.50	115.1	771
2.75	118.3	793
3.00	121.5	814
3.25	124.5	834
3.50	127.5	855
3.75	130.5	874
4.00	133.4	894
4.25	136.2	912
4.50	138.9	931
4.75	141.6	949
5.00	144.3	966
5.25	146.8	984
5.50	149.3	1000
5.75	151.8	1017
6.00	154.1	1033
6.25	156.5	1048
6.50	158.7	1063
6.75	160.9	1078
7.00	163.0	1092
7.25	165.0	1106

Generic Fuel Gage-Inches	Fuel Quantity	
Inches	Gallons	Pounds
0.50	88.4	592
0.75	92.6	621
1.00	96.7	648
1.25	100.8	675
1.50	104.7	702
1.75	108.6	727
2.00	112.4	753
2.25	116.1	778
2.50	119.7	802
2.75	123.2	826
3.00	126.7	849
3.25	130.1	871
3.50	133.4	894
3.75	136.6	915
4.00	139.7	936
4.25	142.8	956
4.50	145.7	976
4.75	148.6	996
5.00	151.4	1015
5.25	154.1	1033
5.50	156.8	1050
5.75	159.3	1068
6.00	161.8	1084
6.33	165.0	1105

Figure 4-2

PREFLIGHT INSPECTION (Continued)

③ LEFT WING Leading Edge (Continued)

8. Outboard Fuel Tank
   Sump Quick-Drain Valve (if installed) . . . . . **DRAIN**

Drain at least a cupful of fuel (using sampler cup) from each sump location to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from **all** fuel drain points until **all** contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

9. Nav and Strobe Lights . . . . . **CHECK**
   (verify condition and cleanliness)

④ LEFT WING Trailing Edge

1. Fuel Tank Vent Opening . . . . . **CHECK**
   (verify opening is clear)
2. Aileron and Servo Tab . . . . . **CHECK**
   (verify condition and security)
3. Static Wicks (4 total) . . . . . **CHECK**
   (verify condition)
4. Spoiler . . . . . **CHECK**
   (verify condition and security)
5. Flap Leading Edge VGs . . . . . **CHECK**
   (verify condition and security)
6. Flap . . . . . **CHECK**
   (verify condition and security)

PREFLIGHT INSPECTION (Continued)

⑤ EMPENNAGE

WARNING

It is essential in cold weather to remove even the smallest accumulations of frost, ice, snow, or slush from the tail and control surfaces. Exercise caution to avoid distorting the VGs on horizontal stabilizer while deicing. To assure complete removal of contamination, conduct a visual and tactile inspection of all critical surfaces. Also, make sure the control surfaces contain no internal accumulations of ice or debris. If these requirements are not performed, airplane performance will be degraded to a point where a safe takeoff and climb may not be possible.

1. Baggage . . . . . **CHECK SECURE** (through cargo door)
2. Cargo Door . . . . . **CLOSED and LATCHED**
3. NACA Scoop and Diverter (if installed). . . . . **CHECK** (verify condition, security and check for restrictions and debris)
4. Horizontal Stabilizer Leading Edge. . . . . **CHECK**
   Verify condition, security, and verify 18 VGs on the upper side of each horizontal stabilizer.
5. Vertical Stabilizer . . . . . **CHECK**
6. Ice Protection System (if installed)

   AIRPLANES EQUIPPED WITH PNEUMATIC DEICE SYSTEM

   a. Horizontal and Vertical Leading Edge Deice Boots . . . . . **CHECK** (for tears, abrasion and cleanliness)

   AIRPLANES EQUIPPED WITH TKS ICE PROTECTION SYSTEM

   a. Horizontal and Vertical Leading Edge Porous Panels . . . . . **CHECK** (verify condition and security)

CAUTION

Look for signs of TKS Ice Protection System fluid leakage through bonded area of the porous panels. If TKS Ice Protection System fluid is leaking through the bonded seam do not operate the TKS Ice Protection System.

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PREFLIGHT INSPECTION (Continued)

⑤ EMPENNAGE (Continued)

7. Control Surfaces and Elevator Trim Tabs . . . . . **CHECK**
   Verify condition, security, freedom of movement and tab position.
8. Static Wicks (14 total) . . . . . **CHECK**
   Verify condition and security; verify 4 static wicks per elevator half, 5 on the rudder, and 1 on the stinger.
9. Rudder Gust Lock . . . . . **UNLOCK**
10. Nav Light . . . . . **CHECK**
    (verify condition and cleanliness)
11. Tail Tiedown . . . . . **DISCONNECT**
12. Tailcone Drain Holes (8) (if installed). . . . . **CHECK**
    (check all holes for restrictions and debris)
13. Drain Hole Scuppers (if installed) . . . . . **CHECK**
    (verify condition and security of all scuppers)
14. Oxygen Filler Door (if installed). . . . . **SECURE**
15. Passenger Entry Door (if installed) . . . . . **CHECK**
    (closed and latched)

⑥ RIGHT WING Trailing Edge

1. Flap . . . . . **CHECK**
   (verify condition and security)
2. Flap Leading Edge VGs . . . . . **CHECK**
   (verify condition and security)
3. Spoiler . . . . . **CHECK**
   (verify condition and security)
4. Aileron and Trim Tab . . . . . **CHECK**
   (verify condition and security)
5. Static Wicks (4 total) . . . . . **CHECK**
   (verify condition)
6. Fuel Tank Vent . . . . . **CHECK**
   (verify opening is clear)

PREFLIGHT INSPECTION (Continued)

⑦ **RIGHT WING Leading Edge**

WARNING

- **IT IS ESSENTIAL IN COLD WEATHER TO REMOVE EVEN THE SMALLEST ACCUMULATIONS OF FROST, ICE, SNOW, OR SLUSH FROM THE WING AND CONTROL SURFACES. EXERCISE CAUTION TO AVOID DISTORTING THE VGs ON WING WHILE DEICING IF EQUIPPED WITH THE OPTIONAL TKS ICE PROTECTION SYSTEM. TO ASSURE COMPLETE REMOVAL OF CONTAMINATION, CONDUCT A VISUAL AND TACTILE INSPECTION UP TO TWO FEET BEHIND THE PROTECTED SURFACES AT ONE LOCATION ALONG THE WING SPAN AS A MINIMUM. ALSO, MAKE SURE THE CONTROL SURFACES CONTAIN NO INTERNAL ACCUMULATIONS OF ICE OR DEBRIS. IF THESE REQUIREMENTS ARE NOT PERFORMED, AIRPLANE PERFORMANCE WILL BE DEGRADED TO A POINT WHERE A SAFE TAKEOFF AND CLIMB MAY NOT BE POSSIBLE.**
- **PRIOR TO ANY FLIGHT IN KNOWN OR FORECAST ICING CONDITIONS, CHECK THAT PITOT/STATIC TUBE(S) AND STALL WARNING HEATERS ARE WARM TO TOUCH AFTER TURNING PITOT/STATIC AND STALL HEAT SWITCHES ON FOR 30 SECONDS, THEN OFF. MAKE SURE THE PITOT COVERS ARE REMOVED PRIOR TO TURNING PITOT/STATIC HEAT ON.**

1. Nav and Strobe Lights . . . . . **CHECK**
   (verify condition and cleanliness)
2. Fuel Quantity . . . . . **VISUALLY CHECK**
   Refer to Figure 4-2, Measured Fuel Depth vs. Fuel Quantity chart in this section.
3. Fuel Filler Cap . . . . . **SECURE**

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PREFLIGHT INSPECTION (Continued)

⑦ **RIGHT WING Leading Edge** (Continued)

4. Outboard Fuel Tank Sump Quick-Drain Valve. . . . . **DRAIN**
(if airplane parked with one wing low on a sloping ramp)
Drain at least a cupful of fuel (using sampler cup) from each sump location to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from **all** fuel drain points until **all** contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

5. Landing and Taxi/Recognition Lights. . . . . **CHECK**
(condition and cleanliness of cover)
6. Pitot/Static Tube . . . . . **CHECK**
(verify security, openings for stoppage and warmth)

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PREFLIGHT INSPECTION (Continued)

⑦ **RIGHT WING Leading Edge** (Continued)

7. Ice Protection System (if installed)
   AIRPLANES EQUIPPED WITH PNEUMATIC DEICE SYSTEM
   a. Leading Edge and Wing Strut Deice Boots . . . . . **CHECK**
   (for tears, abrasion and cleanliness)
   AIRPLANES EQUIPPED WITH TKS ICE PROTECTION SYSTEM
   a. Leading Edge and Wing Strut Porous Panels . . . . **CHECK**
   (verify condition and security)

CAUTION

Look for signs of TKS Ice Protection System fluid leakage through bonded area of the porous panels. If TKS Ice Protection System fluid is leaking through the bonded seam do not operate the TKS Ice Protection System.

   b. VGs . . . . . **VERIFY CONDITION AND NUMBER** (10 VGs on wing)
8. Radome (if installed) . . . . . **CHECK**
   (verify condition and security)
9. Wing Tiedown . . . . . **DISCONNECT**

PREFLIGHT INSPECTION (Continued)

⑦ RIGHT WING Leading Edge (Continued)

10. Inboard Fuel Tank Sump and
External Sump Quick-Drain Valves . . . . . **DRAIN**

Drain at least a cupful of fuel (using sampler cup) from each sump location to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from **all** fuel drain points until **all** contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

11. Main Landing Gear . . . . . **CHECK**
(check condition of gear and brakes)
12. Main Wheel Tire . . . . . **CHECK**
[proper inflation and general condition (weather checks, tread depth and wear, etc.)]

PREFLIGHT INSPECTION (Continued)

⑧ NOSE

WARNING

IT IS ESSENTIAL IN COLD WEATHER TO REMOVE EVEN THE SMALLEST ACCUMULATIONS OF FROST, ICE, SNOW, OR SLUSH FROM THE PROPELLER BLADES AND SPINNER, AND THE AIR INLETS (STARTER/GENERATOR, OIL COOLER AND ENGINE INLETS). TO ASSURE COMPLETE REMOVAL OF CONTAMINATION, CONDUCT A VISUAL AND TACTILE INSPECTION OF ALL CRITICAL SURFACES. IF THESE REQUIREMENTS ARE NOT PERFORMED, AIRPLANE PERFORMANCE WILL BE DEGRADED TO A POINT WHERE A SAFE TAKEOFF AND CLIMB MAY NOT BE POSSIBLE.

1. Right Crew Door . . . . . **CHECK**
   (closed and latched)
2. Exhaust Cover (if installed) . . . . . **REMOVE**
3. Cowling . . . . . **OPEN**
   (right side of upper cowling for access and check condition and security)
4. Engine (right side) . . . . . **CHECK**
   (verify general condition, security, fuel and oil leakage and damage to any components)

WARNING

AVOID TOUCHING THE OUTPUT CONNECTORS OR COUPLING NUTS OR IGNITION EXCITOR WITH BARE HANDS.

5. Battery . . . . . **CHECK**
   (verify condition and power cables security)
6. Exhaust System . . . . . **CHECK**
   (verify condition, security, cracks, distortion and damage)

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PREFLIGHT INSPECTION (Continued)

⑧ NOSE

7. Cowling . . . . . **CLOSE and LATCH** (right side)
8. Propeller Anchor . . . . . **REMOVE**
9. Air Inlet Covers . . . . . **REMOVE**
10. Air Inlets . . . . . **CHECK** (for condition, restrictions, and debris)
    a. Starter/Generator Blast Tube Opening . . . . . **RIGHT SIDE**
    b. Oil Cooler Inlet . . . . . **RIGHT SIDE**
    c. Engine Induction Air Inlet . . . . . **LEFT SIDE**
11. Propeller . . . . . **CHECK**
    Inspect blades for nicks, gouges, looseness of material, erosion and cracks. Also, inspect blades for lightning strike (darkened area near tips), anti-ice boots (if installed) for security, condition and evidence of grease and oil leaks.
12. TKS Ice Protection System (if installed)
    a. Propeller . . . . . **CHECK**
    b. Windshield Spray Bar . . . . . **CHECK** (verify condition and security)
13. Propeller Spinner. . . . . **CHECK** (verify condition and security)
14. Nosewheel Strut and Tire . . . . . **CHECK**
    Check condition, red over-travel indicator block and cable intact (not fallen into view), and proper inflation of tire.
15. Air Conditioning Louvers (if installed) . . . . . **CHECK** (clear of obstructions)
16. Cowling . . . . . **OPEN**
    (left side of upper cowling for access and check condition and security)
17. Engine (left side) . . . . . **CHECK**
    (verify general condition, security, fuel, no oil leakage, and no damage to any components)
18. INERTIAL SEPARATOR Bypass Outlet . . . . **CHECK CLOSED** (verify duct free of debris)

(Continued Next Page)

PREFLIGHT INSPECTION (Continued)

⑧ NOSE (Continued)

19. Engine Oil:
    a. Oil Level . . . . . **CHECK**
    Fill to within 1 1/2 quarts of MAX HOT or MAX COLD (as appropriate) on dipstick. Markings indicate U.S. quarts low if oil is hot.
    b. Dipstick/Filler Cap. . . . . **SECURE**

WARNING

Make sure the oil dipstick cap is securely latched down. Operating the engine with less than the recommended oil level and with the dipstick cap unlatched will result in excessive oil loss and eventual engine stoppage.

20. Electrical Power Box Circuit Breakers and Diodes . . . . **CHECK**
    (verify all circuit breakers, including standby alternators are IN and diodes are clear)
21. Standby Alternator and Belt . . . . . **CHECK**
    (verify condition and security)
22. Air Conditioning (if installed):
    a. Compressor . . . . . **CHECK**
    (verify condition and security)
    b. Drive Belt . . . . . **CHECK**
    (verify condition and tension)
    c. Hoses . . . . . **CHECK**
    Check hoses for evidence of damage or leaks from compressor to the condenser and evaporators.
    d. Condenser Inlet/Outlet . . . . . **CHECK**
    (lower left side of cowling, check installation, condition and blockage)
23. Fuel Filter . . . . . **CHECK FUEL FILTER BYPASS FLAG**
    (for proper location - flush)
24. Brake Fluid Reservoir . . . . . **CHECK**
    (fluid level and cap secured)
25. Cowling . . . . . **CLOSE** and **LATCH**
    (left side)
26. External Power Receptacle . . . . . **CHECK**
    (condition and security)

(Continued Next Page)

PREFLIGHT INSPECTION (Continued)

Ⓑ **NOSE** (Continued)

27. Fuel Filter Quick-Drain Valve. . . . . **DRAIN**
(using fuel sampler)

Drain at least a cupful of fuel (using sampler cup) to check for water, sediment, and proper fuel grade before each flight and after each refueling. If water is observed, take further samples until clear. Take repeated samples from all fuel drain points until all contamination has been removed. Refer to Section 7, Airplane and System Description, Fuel System Schematic for drain locations. If contaminants are still present, refer to WARNING below and do not fly airplane.

NOTE

Collect all sampled fuel in a safe container. Dispose of the sampled fuel so that it does not cause a nuisance, hazard or damage to the environment.

WARNING

If, after repeated sampling, evidence of contamination still exists, the airplane should not be flown. Tanks should be drained and system purged by qualified maintenance personnel. All evidence of contamination must be removed before further flight.

28. Fuel Drain Can . . . . . **DRAIN**
(until empty)
29. Fuel Pump Drain Reservoir (if installed) . . . . . **DRAIN**
(until empty)

FIELD REPAIR MANUAL
FOR CESSNA CARAVAN 208B COMPOSITE ENGINE COWLING WITH BLACKHAWK XP-42A UPGRADE

BRM 11001
REVISION A

Digitally signed by Phillip Larson
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Date: 2011.11.21 12:21:28 -07'00'

Prepared By:	Phillip Larson DER Structures	11/18/11 Date
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Engineering:	David W. Jensen DER Structures Jensen Technologies, LLC	11/18/11 Date
Approved:	Jon Adams Director of Engineering Blackhawk Modifications, Inc.	11/18/11 Date

Number	Description
200803-506-125	Upper Truss Leg Base Cap, Detail
200803-506-126	Lower Truss Leg Base Cap, Detail
200803-506-015	Fwd Nose Gear Fairing, Assembly
200803-506-016	Aft Nose Gear Fairing Assembly
200803-506-024	AC INLET

5.2 HARDWARE

Hardware details and locations are shown in the Blackhawk Modifications Drawing, 200803-005. For hardware not shown on the drawing 200803-005, contact Blackhawk for part numbers.

5.3 COWLING MATERIALS

The cowling is manufactured from multiple materials such as carbon fiber\epoxy, lightning strike protection material and honeycomb core.

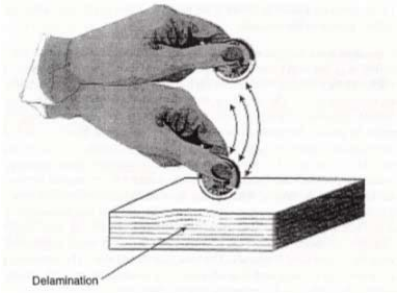
6.0 INSPECTION REQUIREMENTS

6.1 VISUAL INSPECTION

Visually inspect Cowling during routine pre-flight checks. Check for obvious damage or anomalies. Signs of discrepancies will be abrasions in paint, bulges on the surface, forward facing steps between assemblies due to missing hardware, punctures, etc. Any anomalies found shall be reported to a certified A & P Mechanic who has experience with composite structures for evaluation.

6.2 NON-DESTRUCTIVE INSPECTION

If a visual inspection reveals an anomaly on one of the cowling components, a tap test inspection shall be performed. Damaged or bulged areas shall be ‘tapped’ by a trained/experienced mechanic to judge the severity of damage by way of the sound produced through the tap test.



Areas in the composite material that are delaminated, fractured or disbonded due to damage will reveal a distinctive ‘dull’ tone as opposed to a solid ‘sharp’ tone. It is suggested to use a US quarter or a steel washer the same size or larger for tapping. Determine appropriate tapping force on a non-painted cowling surface and for painted areas, care should be taken to not damage

existing paint. Calibrate the audible sound by 'tapping' a known undamaged area and then the suspected damaged area. Again, there will be a distinctive sound difference between a 'solid' area and a 'damaged' area where the integrity of the composite has been compromised. An A & P Mechanic shall evaluate the suspected damage and determine whether a repair is needed in accordance with this manual.

6.3 INSPECTION FREQUENCY

Visual Inspection – Prior to each flight

Tap Test Inspection – Any time there is visible anomaly or damage detected.

7.0 COMPOSITE DAMAGE

The majority of composite damage is caused by ground handling mistakes and carelessness caused by physical impact. Inflight damage can occur as a result of a lightning strike, bird strike, hail or airborne foreign object. In either case, inspections indicated in Section 6.0 shall be performed on suspected damage and assessed by an A & P Mechanic. For all damage not specifically listed below, contact the STC holder for disposition and repair support.

DAMAGE	ACTION
Scratch in topcoat/primer	Monitor for paint peeling or chipping. See Section 8.1 Paint Only Surface Damage
Paint chipping or peeling	Repair in accordance with Section 8.1 Paint Only Surface Damage
Missing hardware	Conduct field repair prior to next flight in accordance with Section 8.2 Missing Hardware
Scrape in topcoat with lightning mesh missing	If less than 1 square inches damage in each 1 square foot of area, perform cosmetic repair in accordance with Section 8.1 Record repair location for reference when considering repair of future damage in same area. If the damage is more than 1 square inches or there are multiple damage sites in any 1 square foot area, conduct field repair in accordance with section 0
Scrape, scratch or gouge in topcoat thru lightning mesh and carbon	For penetrating damage less than .005 deep and 2 inches long repair per Section 8.3 and then Section.8.1..

LISTA DE CHEQUEO DEL ESTADO DE INSTALACIÓN DE SENSORES AER OTRANPORTADOS

EL PERSONAL ENCARGADO DE LA INSPECCIÓN PREVUELO DEBERÁ, CONJUNTAMENTE CON LAS INSTRUCCIONES PREVUELO INDICACADAS EN EL MANUAL DE VUELODE LA AERONAVE, CUMPLIR LAS SIGUIENTES INDICACIONES:

1. INSPECCIONAR LA ZONA EXTERIOR DEL FUSELAJE DONDE SE ENCUENTRAN UBICADOS LOS AGUJEROS DE LAS CÁMARAS CONSTATAR QUE NO EXISTEN DEFORMACIONES DE LA SUPERFICIE Y DE QUE LOS CARENADOS ASOCIADOS A LOS MISMOS ESTAN DEBIDAMENTE FIJADOS.
2. COMPROBAR LA ADECUADA SUJECIÓN DE LOS ASIENTOS AUXILIARES DESTINADOS A LOS OPERADORES DE LOS SENSORES.
3. COMPROBAR LA ADECUADA SUJECIÓN DE CADA SENSOR A LA ESTRUCTURA DE LA AERONAVE. MOVER LAS PARTES DEL SENSOR COMPROBANDO QUE SON SOLIDARIAS A LOS PUNTOS DE SUJECIÓN AL AVIÓN.
4. COMPROBAR QUE LOS ELEMENTOS QUE GARANTIZAN SU FIJACIÓN CUENTA CON LA TENSIÓN ADECUADA.
5. COMPROBAR QUE TODOS LOS EQUIPOS AUXILIARES REQUERIDOS PARA EL FUNCIONAMIENTO DEL SENSOR, EL MOVILIARIO SOBRE EL QUE SE ENCUENTRAN INSTALADOS ASÍ COMO TODO EL MATERIAL AUXILIAR COLOCADO EN CABINA SE ENCUENTRAN SUJETOS DE FORMA SEGURA A LA ESTRUCTURA DE LA AERONAVE.
6. INSPECCIONAR LA CORRECTA SUJECIÓN DE LAS CONEXIONES DE LOS SENSORES Y EQUIPOS AUXILIARES CON LOS SISTEMAS DE LA AERONAVE.
7. ASEGURAR QUE LA DISPOSICIÓN DE LOS CABLES DE LOS SENSORES Y EQUIPOS AUXILIARES NO OBSTACULICEN EL ACCESO A LAS SALIDAS DE EMERGENCIA.