

Attachment 7
Ice and Rain Protection
Maintenance Inspections

0437883
295763



TBO

CARD 05-000-0L1

Rev: 9

Date: 11/12/08

Q400

L1 CHECK

N: 200656

Effectivity: ALL

Reference: DASH8/Q400 PSM 1-84-2S, Ramp Servicing Manual, Chapter 7

MRM Task: 050000-01; 791000-201; 324000-201; 324000-202

Access: 112AR; 412AL; 422AL

Tools/Materials: Tire pressure gage, 0-300 psi; Engine oil; Nitrogen; Oxygen;
Hydraulic fluid (both MIL-PRF-5606 and Skydrol); Lint-free cloth

Date: 2-12-09

Station: ALB

Task Man-hours: (TBD)

Access Man-hours: 0.08

Men Req'd: 1

Mechanic

Inspector

THIS BOX TO BE COMPLETED BY RECORDS PERSONNEL - ONLY

ACTT: 1816.8 ACTC: 1806

NOTE: THE WORK SCOPE OF THIS CARD INCLUDES:

- A VISUAL WALK-AROUND INSPECTION FROM THE GROUND, CHECKING FOR GENERAL CONDITION INCLUDING DAMAGE, SIGNS OF FLUID LEAKAGE, AND THE NORMAL POSITIONS OF DOORS, PANELS, FAIRINGS, AND COWLINGS.
- AN INSPECTION OF ENGINE OIL LEVELS, HYDRAULIC FLUID LEVELS, AVIATOR'S BREATHING OXYGEN QUANTITY, AND TIRE PRESSURES.
- A VISUAL INSPECTION OF THE INTERIOR FOR GENERAL CONDITION AND CLEANLINESS.

1. Open and lock the main landing gear and nose landing gear doors IAW Q400 AMM 32-00-00-840-801.

2. Install the main landing gear pins IAW Q400 AMM TASK 10-11-00-400-802 and engage the nose landing gear ground lock IAW AMM TASK 10-11-00-400-801.



Mechanic

Inspector

EXTERIOR: NLG and WHEEL WELL

- 3. Visually check that the NLG shock strut extension is normal.
 - a) Wipe down the exposed portion of the NLG shock strut using a clean, lint-free cloth & hydraulic fluid (5606).
 - b) Visually check the taxi light for visual damage and security.

- 4. Check the nose wheel and tire assembly as follows:
 - a) Perform a general visual inspection of the nose wheels and tires for correct installation & signs of obvious damage, flat spots, cuts, nicks, tread separation, & wear limits.
 - i. Replace tires with less than 1/32" tread depth averaged over any one groove.
 - ii. Replace tires for other conditions as required.
 - b) Check the valve stem for proper torque (3 - 5 in lbs).
 - c) Do a functional check of the tire pressures:
 - i. **BEFORE SERVICING THE TIRE**, record tire pressure below:
 LH Nose: 92 psi RH Nose 92 psi.
 - d) Service the tires to the pressure shown in the table below:

NOTE : Tire Inflation Pressures are at Ambient Temperature with full weight of aircraft on the tires ("loaded")

IF TIRE PRESSURE IS FOUND AT:	THEN:
80 to 92 psi	Service Tire to 93 psi
71 to 79 psi	R&R Applicable Nose Tire (service new tire to 93 psi)
Under 71 psi	R&R BOTH Nose Tires (service new tires to 93 psi)

- e) Check the cap for proper torque (5 - 10 in lbs).
 - i. An alternate procedure to torque the valve cap is as follows:
 - a. Install the valve cap on the tire valve hand tight.
 - b. Use a suitable wrench and tighten the valve cap a further 60 to 90 degrees (1/4 turn maximum) from the hand tight position.



Date: 11/12/08

CARD 05-000-0L1

N: 20062

Mechanic

Inspector

NOSE SECTION

5. Visually check the radome for signs of cracks or delamination.

6. Visually check the following:

- a) Pitot/static probe inlets, drain & vent holes for obstructions,
- b) AOA vanes for condition and freedom of movement, and,
- c) Ice detectors for condition.

7. Check the fluid quantity level of the landing gear alternate extension resevoir by checking the SAFE mark on the dipstick.

- a) Access dipstick by opening access panel 112AR.
- b) Check fluid quantity and service reservoir if required.
- c) Keep access panel 112AR open for Step 8 below.

8. Visually check the oxygen cylinder pressure gauge for correct pressure.

a) Record pressure cylinder pressure: 1500 psi.

NOTE: If oxygen pressure is within 100 psi of the maximum servicing requirements, no servicing is required. The cylinder is fully charged at 1850 psig at 70° F.

The minimum dispatch pressure at 70° F is 1050 psi for 2 crew; 1450 psi for 3 crew.

b) Use the chart below to determine minimum dispatch pressures at specific ambient temperatures:

c) Make sure that the cylinder-mounted oxygen pressure gauge and the cockpit oxygen pressure gauge show the same pressure value +/- 100 psi.

i. Replenish aviator's oxygen as required.

ii. Record O₂ Pressure (after servicing, if required):

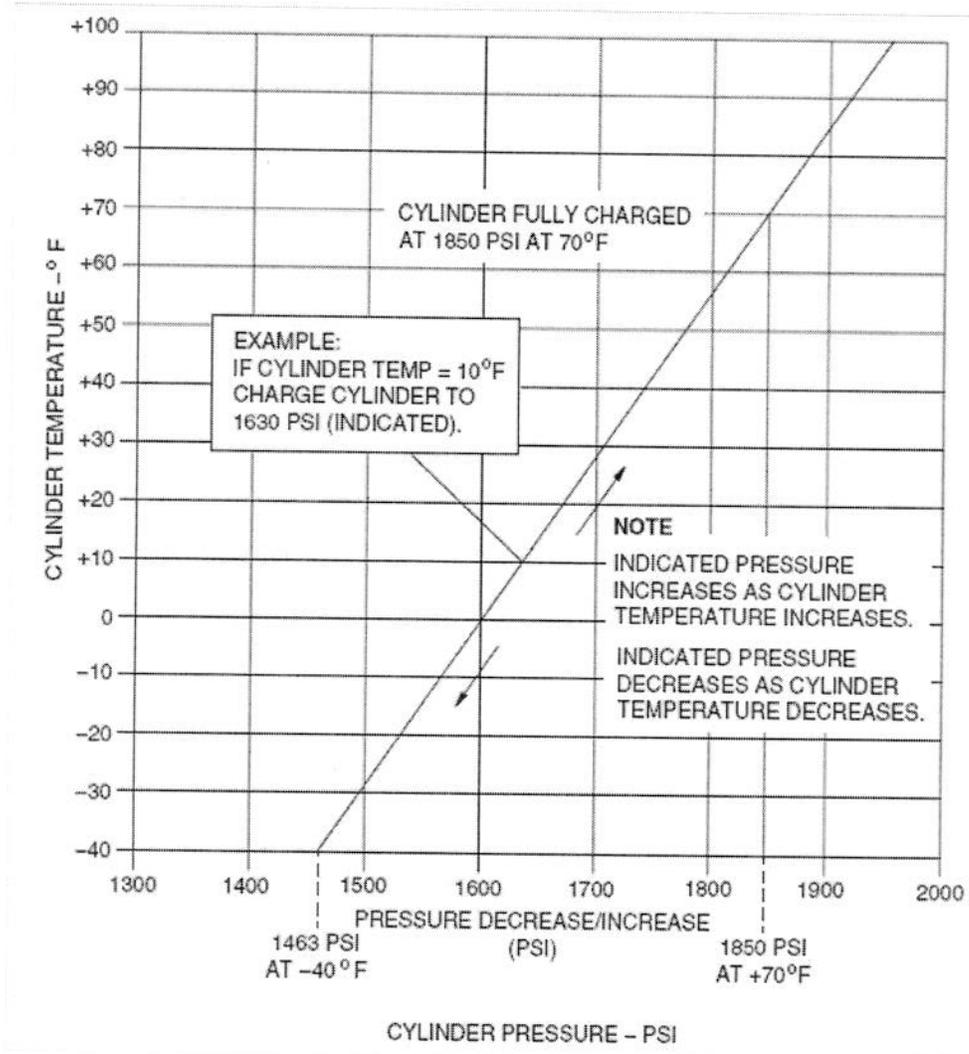
O₂ System: 1850 psi Ambient Temp: 70° ° F

d) Close access panel 112AR.

e) Make sure that the overboard discharge indicator for the crew oxygen cylinder shows a green disk.

Mechanic

Inspector



RH FORWARD FUSELAGE

9. Perform a general visual inspection of antennas, cabin windows, and external skin for obvious damage.

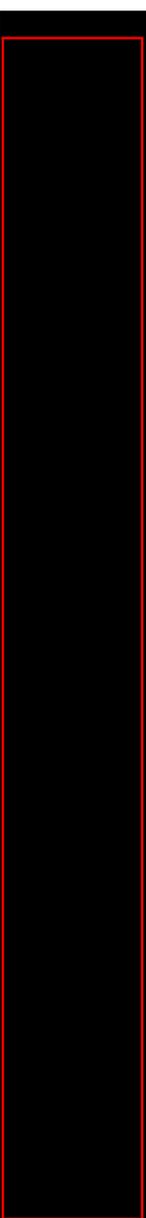
10. Visually check FWD Baggage Compartment for obvious damage and security of door.



Date: 11/12/08

CARD 05-000-0L1

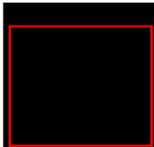
N: 20012

	Mechanic	Inspector
RH INBOARD SECTION OF WING		
11. Visually check the leading edge & deicer boots for obvious damage.		
RH POWERPLANT, PROPELLER AND NACELLE		
12. Visually check the exterior of the RH nacelle for: a) obvious damage and security of access panels b) evidence of fuel and/or oil leaks (including exhaust tail pipe) c) evidence of excessive leakage from environmental drains.		
13. Visually check the No. 2 Hydraulic System reservoir to ensure it shows FULL (0 psi) as specified on the quantity / temperature graph near the reservoir. a) Service as required. NOTE: ENSURE THERE IS NO HYDRAULIC PRESSURE IN THE PARKING BRAKE ACCUMULATOR. IN THE FLIGHT COMPARTMENT, OPERATE THE PARKING LEVER 10 TIMES TO REMOVE PRESSURE FROM THE PARKING BRAKE ACCUMULATOR. MAKE SURE THE PARKING BRAKE LEVER IS NOT LEFT IN THE "PARK" POSITION.		
14. Visually check the Temperature Tape installed on the right side of the # 2 hydraulic system engine-driven hydraulic pump (EDP). a) If the temperature tape has reached the 250° mark: i. Contact Maintenance Control to notify Planning. ii. Open a DMI to replace the EDP within 3 days. b) If the Temperature Tape is missing from the EDP, install the Temperature Tape IAW CA TD 400-29-08-02.		
15. Visually check prop spinner for obvious damage & security.		
16. Visually check the prop blades for obvious damage.		

Date: 11/12/08

CARD 05-000-0L1

N: 26042

	Mechanic	Inspector
<p>17. <u>Within 15 - 20 minutes after an engine shutdown</u>, check the engine oil level and replenish as necessary (Ref. AMM TASK 79-36-00-200-801):</p> <p>a) Open access door 422AL.</p> <p>NOTE: THE OPERATION OF THE ENGINE PRECEEDING SERVICING MUST BRING THE <u>ENGINE OIL OPERATING TEMPERATURE TO A MINIMUM OF 45°C</u> BEFORE SERVICING 15-20 MINUTES AFTER SHUTDOWN.</p> <p>b) Check the engine oil level sightglass on the oil tank.</p> <p>c) Service oil as required.</p> <p>NOTE: <u>FILL OIL ONLY TO THE "ADD ONE QUART" MARK, AND NOT TO THE "MAX FULL" MARK.</u></p> <p>i. Document the amount of oil serviced in the flight log.</p> <p>ii. Document below:</p> <p style="text-align: center;">RH QTY Oil Added: <u>3 QT</u></p> <p>d) Close access door 422AL.</p>		

e) VERIFICATION OF OIL CAP INSTALLATION -

BY SIGNING MY NAME BELOW, I CERTIFY THAT THE OIL CAP IS INSTALLED CORRECTLY AND THAT I HAVE DOUBLE CHECKED THE OIL CAP INSTALLATION:

SIGNATURE:  EMP #: 

RH MAIN LANDING GEAR AND WHEEL WELL		
<p>18. Wipe down MLG shock strut using a cloth/hydraulic fluid (5606).</p>		
<p>19. Visually check the #2 hydraulic system case drain filter differential pressure indicator (DPI) button on the hydraulic manifold to see if the button is extended (popped).</p> <p>a) If the case drain filter DPI button has extended (popped):</p> <p>i. Re-set the DPI button.</p> <p>ii. Notify Maintenance Control.</p> <p>iii. Create a DMI to replace the applicable case drain filter within the next 10 flight hours.</p>		

Date: 11/12/08

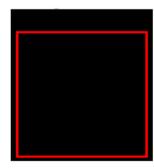
CARD 05-000-0L1

N: 20012

Mechanic

Inspector

20. Check the RH wheel and tire assemblies as follows:
- a) Perform a general visual inspection of the RH wheels & tires for correct installation & signs of obvious damage, signs of flat spots, cuts, nicks, tread separation, & wear limits.
 - i. Replace tires with less than 1/32" tread depth averaged over any one groove.
 - ii. Replace tires for other conditions as required.
 - b) Check the valve stem for proper torque (3 - 5 in lbs).
 - c) Do a functional check of the tire pressures.
 - i. **BEFORE SERVICING THE TIRE**, record tire pressure below:
RH Outboard: 145 psi RH Inboard 140 psi.
 - d) Service the tires to the pressure shown in the table below:



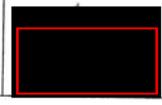
NOTE : Tire Inflation Pressures are at Ambient Temperature with full weight of aircraft on the tires ("loaded")

IF TIRE PRESSURE IS FOUND AT:	THEN:
127 to 147 psi	Service Tire to 148 psi
113 to 126 psi	R&R Applicable Main Tire (service new tire to 148 psi)
Under 113 psi	R&R BOTH Main Tires (service new tires to 148 psi)

- e) Check the cap for proper torque (5 - 10 in lbs).
 - i. An alternate procedure to torque the valve cap follows:
 - a. Install the valve cap on the tire valve hand tight.
 - b. Use a suitable wrench and tighten the valve cap a further 60 to 90 degrees (1/4 turn maximum) from the hand tight position.

RH OUTER WING / REAR INBOARD WING SECTION

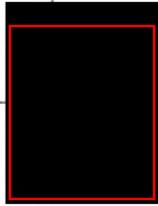
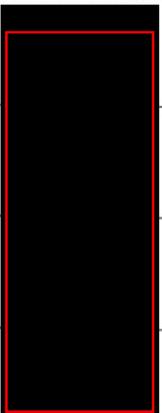
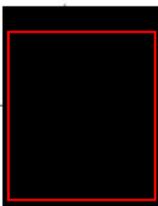
21. Visually check leading edge/deicer boots for obvious damage.



Date: 11/12/08

CARD 05-000-0L1

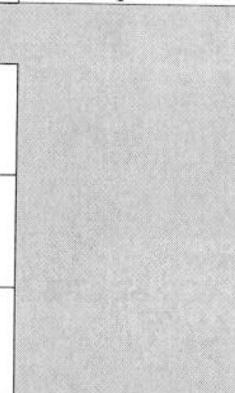
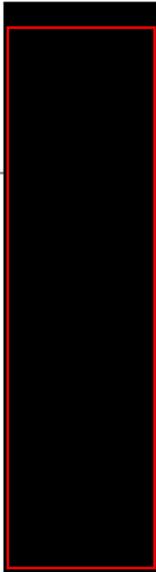
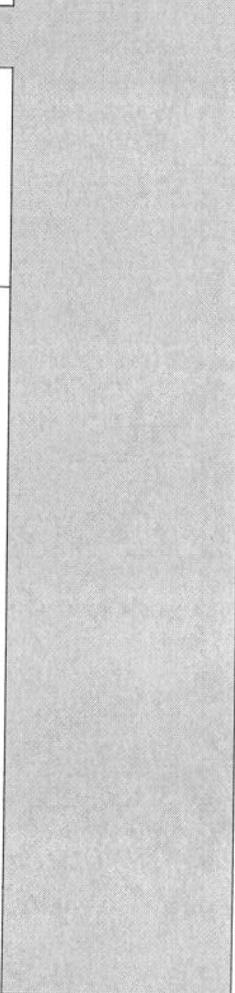
N: 2042

	Mechanic	Inspector
22. Visually check the wing for signs of fluid leakage.		
23. Visually check aileron & wing tip static discharge wicks for presence.		
RH REAR FUSELAGE		
24. Visually check cabin windows, external skin (as visible), and emergency exit door for obvious damage.		
EMPENNAGE		
25. Visually check the vertical stabilizer leading edge and antennas for obvious damage.		
26. Visually check LH & RH horizontal stabilizer leading edge, trailing edge and elevator for obvious damage.		
27. Visually check the LH & RH horizontal and vertical stabilizer deicer boots for obvious damage.		
28. Visually check the static discharge wicks on the stabilizer tips and control surface trailing edges for obvious damage.		
TAIL SECTION		
29. Visually check the static discharge wick for presence and tail lights for obvious damage.		
30. Visually check the APU exhaust tail pipe and access door area for evidence of fluid leakage.		
LH REAR FUSELAGE		
31. Visually check cabin windows, external skin (as visible), cargo door, and emergency exit door for obvious damage.		
BAGGAGE COMPARTMENT		
32. Visually check Aft Cargo Compartment for damage & security of door, panels, cargo restraints, floor surfaces & side panels.		

Date: 11/12/08

CARD 05-000-0L1

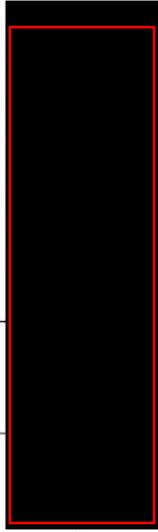
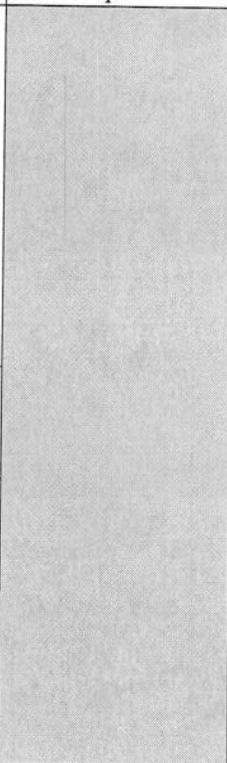
N: 20090

	Mechanic	Inspector
LH OUTER WING/REAR INBOARD WING SECTION		
33. Visually check the leading edge and deicer boots for obvious damage		
34. Visually check the wing for signs of fluid leakage.		
35. Visually check the aileron and wing tip static discharge wicks for presence.		
LH POWERPLANT, PROPELLER AND NACELLE		
36. Visually check the exterior of the LH nacelle for: a) obvious damage, security of access panels b) evidence of fuel and/or oil leaks (including exhaust tail pipe) c) evidence of excessive leakage from environmental drains.		
37. <i>Within 15 - 20 minutes after an engine shutdown</i> , check the engine oil level and replenish as necessary: a) Open access door 412AL. NOTE: THE OPERATION OF THE ENGINE PRECEEDING SERVICING MUST BRING THE <u>ENGINE OIL OPERATING TEMPERATURE TO A MINIMUM OF 45°C</u> BEFORE SERVICING 15-20 MINUTES AFTER SHUTDOWN. b) Check the engine oil level sightglass on the oil tank. c) Service oil as required. NOTE: <u>FILL OIL ONLY TO THE "ADD ONE QUART" MARK, AND NOT TO THE "MAX FULL" MARK.</u> i. Document the amount of oil serviced in the flight log. ii. Document below: LH QTY Oil Added: <u>1.5 QTY</u> d) Close access door 412AL. e) VERIFICATION OF OIL CAP INSTALLATION - BY SIGNING MY NAME BELOW, I CERTIFY THAT THE OIL CAP IS INSTALLED CORRECTLY AND THAT I HAVE DOUBLE CHECKED THE OIL CAP INSTALLATION: SIGNATURE:  EMP #: 		

Date: 11/12/08

CARD 05-000-0L1

N: 20040

	Mechanic	Inspector
38. Visually check No. 1 Hydraulic System reservoir to ensure it shows FULL (0 psi) per quantity / temp graph near reservoir. a) Service reservoir as required. NOTE: ENSURE THERE IS NO HYDRAULIC PRESSURE IN THE PARKING BRAKE ACCUMULATOR. OPERATE THE PARKING LEVER 10 TIMES TO REMOVE PRESSURE FROM THE PARKING BRAKE ACCUMULATOR. MAKE SURE PARKING BRAKE LEVER IS NOT LEFT IN THE "PARK" POSITION.		
39. Visually check the propeller spinner for obvious damage and security.		
40. Visually check the prop blades for obvious damage.		
LH MAIN LANDING GEAR AND WHEEL WELL		
41. Wipe down the exposed portion of the MLG shock strut using a clean, lint-free cloth and hydraulic fluid (5606).		

Date: 11/12/08

CARD 05-000-0L1

N: 20042

Mechanic

Inspector

42. Check the LH wheel and tire assemblies as follows:

a) Perform a general visual inspection of the LH wheels and tires for correct installation and signs of obvious damage, signs of flat spots, cuts, nicks, tread separation, and wear limits.

i. Replace tires with less than 1/32" tread depth averaged over any one groove.

ii. Replace tires for other conditions as required.

b) Check the valve stem for proper torque (3 - 5 in lbs).

c) Do a functional check of the tire pressures (see table below).

i. **BEFORE SERVICING THE TIRE**, record tire pressure below:

LH Outboard: 146 psi LH Inboard 145 psi

d) Service the tires to the pressure shown in the table below:

NOTE : Tire Inflation Pressures are at Ambient Temperature with full weight of aircraft on the tires ("loaded")

IF TIRE PRESSURE IS FOUND AT:	THEN:
127 to 147 psi	Service Tire to 148 psi
113 to 126 psi	R&R Applicable Main Tire (service new tire to 148 psi)
Under 113 psi	R&R BOTH Main Tires (service new tires to 148 psi)

e) Check the cap for proper torque (5 - 10 in lbs).

i. An alternate procedure to torque the valve cap is as follows:

a. Install the valve cap on the tire valve hand tight.

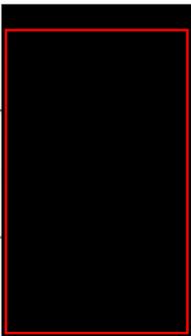
b. Use a suitable wrench and tighten the valve cap a further 60 to 90 degrees (1/4 turn maximum) from the hand tight position.



Date: 11/12/08

CARD 05-000-0L1

N: 200200

	Mechanic	Inspector
LH INBOARD SECTION OF WING		
43. Visually check leading edge/deicer boots for obvious damage.		
LH FORWARD FUSELAGE		
44. Perform a general visual inspection of antennas, cabin windows and external skin for obvious damage.		
45. Perform a general visual inspection of the passenger entry door (exterior) for obvious damage.		
46. Remove the two FWD Passenger Door drain plugs, allow any water to completely drain, and re-install the drain plugs.		
INTERIOR: FLIGHT COMPARTMENT		
47. Check for presence of the Airworthiness Certificate, the Aircraft Registration, and the Radio Station License on LH bulkhead behind pilot's seat.		
CABIN		
48. Visually check the lavatory for damage and security of doors and panels, and for signs of fluid leakage.		
49. Check all overhead stowage bins for visible damage.		
50. Visually check the galley for obvious damage and signs of fluid leakage.		

Date: 11/12/08

CARD 05-000-0L1

N: 20022

Mechanic

Inspector

CLOSE OUT

51. Remove locking pins from the main landing gear and nose landing gear doors.
NOTE: ALL GEAR DOORS WILL CLOSE ONCE HYDRAULIC POWER IS APPLIED.

52. Remove the main landing gear pins in accordance with Q400 AMM 10-11-00-000-802 and disengage the nose landing gear ground lock IAW AMM 10-11-00-000-801.

53. Remove all used "White" log pages.

54. Complete Airworthiness Release Check List - CA-M45.

55. Sign Airworthiness Release block on new log page (full signature) and write certificate number and date.

56. Ensure Flight Log, MEL Control Log, and DMI Log are all returned to the aircraft, and spare Flight Log and DMI Log are present.

57. Remove all tools, equipment, and unwanted materials from the work area.

[Redacted Signature]

FULL SIGNATURE

[Redacted Employee #]

EMPLOYEE #

2-12-09

DATE