

Docket No. SA-521

Exhibit No. 11D

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D. C.

Attachment C -- Emery DC-8 Service Check

(8 Pages)

EMERY WORLDWIDE AIRLINES DC-8	REV. DATE 08/30/98	REV. NO. Original	PAGE NO. 1 OF 8	INSPEC. CK Service Ck	CARD NO. SVC1
			ACFT. NO. 80796	STATION FSLC	DATE 2-12-00
LOG PAGE 8192-09	INSTRUCTION			SIGN-OFF MECHANIC ONLY	

1. UPON ARRIVAL

- a. Park aircraft and secure as required according to the Douglas Maintenance Manual Chapter 10 "Parking Maintenance Practices." Install landing gear locking pins. Electrically ground aircraft to approved ground rods from grounding points.

a. 03637

NOTE: Verify that ground power unit voltage reads 110 to 120 VAC, and frequency is 380-420 hertz. Connect ground power.

- b. Position switches as follows:

b. 03637

1. Emergency Lights OFF
2. Emergency Light Not Armed..... ILLUMINATED
3. Air Conditioning OFF
4. Battery-External Power.....EXTERNAL POWER
5. Galley Power OFF

- c. Open the following circuit breakers:

c. 03637

1. Engine ignition
2. Ignition P.S. Control
3. Ignition and Tach Power Supply
4. Longitudinal Trim
5. Blow away Jet Pump (50 & 60 Series)
6. Standby Attitude Indicator
7. Air Conditioning Pack Trip

- d. Review log book and discrepancies with flight crew and take corrective action on open discrepancies.

d. 03637

- e. Review open deferred maintenance items and verify time limits and due dates with Maintenance Control and take necessary action.

e. 03637

- f. Engage gust lock mechanism, close oxygen shutoff valves.

f. 03637

- g. Pressurize Hydraulic System.

g. 03637

WARNING: CLEAR AIRCRAFT OF OBSTACLES AND PERSONNEL PRIOR TO EXTENDING FLAPS AND SPOILERS:

WARNING: INADVERTENT OPERATION OF THRUST REVERSERS COULD CAUSE SERIOUS INJURY TO PERSONNEL WORKING IN AREA:

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LOG PAGE 8192-01	INSTRUCTION			SIGN-OFF MECHANIC ONLY		

h. Extend wing flaps and ground spoilers.

h.

i. Deploy thrust reversers.

i.

j. Set brakes.

j.

2. EXTERIOR (Fuselage and Wheel Wells)

a. Open main landing gear doors using door manual open control valve, located in left main gear wheelwell. Install landing gear downlock pins.

a.

b. Visually inspect radome, windshield, left and right wings, flaps, flight controls, fuselage, engine nacelles, and pylons for skin damage and evidence of hydraulic fluid (aux pump on), fuel or oil leaks as viewed from ground. Aux Pump Off. Check for broken or missing static dischargers.

b.

NOTE: If walkaround BECOMES EXCESSIVE TURN OFF BOOST PUMP AND AUXILIARY HYDRAULIC PUMP.

NOTE: When inspecting engines, engine nacelles, and pylons for fuel leaks, ensure all crossfeed valves are open and one (1) boost pump is operating.

c. Visually check (from ground) horizontal/vertical stabilizers, flight control attachments, and tail skid for evidence of damage, leaks, and security. Tail skid for missing red paint. Check for broken or missing static dischargers.

c.

d. Check that cabin pressure relief valves are flush with fuselage.

d.

e. Check that static ports and pitot tubes are clear and damage free.

e.

f. Check for presence of O2 blowout disc.

f.

g. Inspect lower cargo compartments for general condition, doors and lighting for operation, and installation of retaining nets.

g.

h. Check nose and main landing gear tires for proper pressure. cuts, excessive wear, or other visible defects. Check wheels for visible damage. Nose tire inflation (Series 54/63/71/73 - 155 PSI; Series 62 - 165 PSI).

h.

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LOG PAGE 8192-09	INSTRUCTION			SIGN-OFF MECHANIC ONLY		

MLG TIRE/BRAKE SERVICE LIMITS

Aircraft Effectivity	Tire Size	Tire Pressure	Max Brake Pin Depth AD 94-06-10
DC8-50 Series Light Gear	44 X 16	170 PSI	5/8" P/N 154252-2
DC8-62/71 Light Gear	44 X 16	190 PSI	5/8" P/N 154252-2
DC8-62/63/73 Heavy Gear	44.5 X 16.5	195 PSI	11/16" P/N 2601412-1 7/16" *P/N 2601412-2

***NOTE: BRAKE ASSY IDENTIFIED BY A PERMANENT YELLOW DOT**

- i. Check brake wear indicator and brake over-all condition. Brakes should be warm to the touch, to indicate proper operation during previous landing.
- j. Brake Lockouts/Deboosters. Check lockouts/ deboosters for leakage and proper height. Fill, if below limits. Release brakes on completion of check. (Limit top piston bleed screw below first shoulder on plastic piston cap).
- k. Visually check wheel wells and landing gear for general condition, obvious damage, fluid leaks, and security of attachments. Inspect MLG doors, jams, hinges and all component installations in the nose and main wheelwells for condition, security and evidence of leaks. Check operation of lighting.
- l. Perform brake decay check.
 - 1. Parking brake on and main system pressurized.
 - 2. Auxiliary Hydraulic Pump Off.
 - 3. Check brake pressure and decay time. Perform per Maintenance Manual 32-44-47.
- m. Check precharge of accumulators and air brake bottle for correct pressure and the flap lockout cylinders for correct extension.

- i. 03637
- j. 03364
- k. 03637
- l. 03637
- m. 03637

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DC-8				ACFT NO. 802911	STATION FSLC	D. T. T. 1-12-60
LOG PAGE 8152-09	INSTRUCTION				SIGN-OFF MECHANIC ONLY	

n. Inspect nose and main landing gear struts for proper extension. Wipe down landing gear strut pistons with rag moistened with MIL-H-5606.

n. 03364

3. EXTERIOR (Engines)

a. Inspect thrust reversers for general condition.

a. 03637

b. Retract thrust reversers and open engine cowlings.

b. 03637

c. Inspect engine inlets, fan bypass, and exhaust areas for visible damage. Visually check front compressor blades and rear turbine blades for shingled or damaged blades.

c. 03637

d. Inspect installed components for general condition, installation and fluid leakage.

d. 03637

e. Inspect all wiring harnesses for serviceability, security, fire loops for damage and clearance.

e. 03637

4. FUSELAGE INTERIOR

a. Check cockpit entrance door for visible discrepancies and proper operation of locking mechanism.

a. 03364

b. Check cockpit and courier area for general condition: oxygen masks, smoke goggles, windows, PBE, seats, safety belts and instruments for security and visible damage. Check over-water equipment (if installed).

b. 03364

c. Check oxygen cylinders for proper pressure:

c. 03364

1) Crew fixed cylinder: 1500-1800 PSI at 21°C (70°F)

2) One Crew portable cylinders: 1800 + 0 -20 PSI at 21°C (70°F)

3) Courier and lavatory portable cylinders (if installed): 1800 + 0 -20 PSI at 21°C (70°F)

d. Perform operational check of exterior lighting. Check to include the following:

d. 03364

1) Anti-collision lights.

2) Wing and tail navigation lights.

3) All landing and taxi lights.

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EMERY WORLDWIDE AIRLINES		REV. DATE 08/30/98	REV. NO. Original	PAGE NO. 5 OF 8	INSPEC. CK Service Ck	CARD NO. SVC1
DC-8				ACFT. NO. 8075 U	STATION FSLC	DATE 12/2/00
LOG PAGE 819209	INSTRUCTION			SIGN-OFF MECHANIC ONLY		

- 4) Logo lights and wing/ground flood lights.
- 5) Strobe lights.
- e. Test operation of all cockpit lighting and check spare bulb and fuse supply. Replenish as necessary. e. 03364
- f. Perform operational test of emergency lighting. f. 03364
- g. Test operation of Fire Warning System. g. 03364
- h. Test the smoke-detector system. h. 03364
- i. Test flight data recorder. Turn switch on, light should go out. i. 03364
- j. Test cockpit voice recorder per applicable maintenance manual. j. 03364
- k. Check charge level of SAI battery. (If installed) k. 03364
- l. Verify aircraft battery voltage, minimum 22 volts. l. 03364
- m. Check magnetic compass for bubbles and correction chart for legibility. m. 03364
- n. Check condition of fire extinguishers, first aid kits, fire axe, and evacuation rope. n. 03364
- o. Check that aircraft airworthiness certificate, aircraft registration, radio license, and Maintenance Manuals are on board. (MP&P Chap. 1 - Manual Distribution) o. 03364
- p. Visually check main cargo compartment for cleanliness, evidence of any damage (i.e. cargo liner and flooring for holes, tears, defective repairs, etc...), and that all lighting is operational. p. 03364
- q. Check lavatory system for leakage and cleanliness. q. 03364
- r. Visually check that main cargo door sill guards are on board aircraft. r. 03364

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DC-8				ACFT. NO.	STATION ESLC	DATE 7-12-00
LOG PAGE 8792-09	INSTRUCTION 8079U			SIGN-OFF MECHANIC ONLY		

s. Visually check cargo compartment door (i.e. seals, spools, attach brackets, hooks, and support fittings) for damage, security, and general condition. Ensure cargo door lock viewing windows are clean.

s. 03637

t. Check vent door operation and condition.

t. 03637

u. Visually check cargo compartment loading system (i.e. rollers, pallet locks, side rails and ballmat) for damage, security, and general condition.

u. 02637

5. POST INSPECTION ENGINE RUN When OAT is Below 0° C only

a. Prepare aircraft and engines for engine run per EWA Run-up Handbook.

a. 03637

b. Reset all circuit breakers listed on page 1 as required for engine run.

b. 03637

c. Ensure proper fluid levels prior to running engines.

c. 03637

d. Visually inspect each engine intake and exhaust prior to engine starts.

d. 03637

WARNING: ENSURE ALL PERSONNEL AND EQUIPMENT ARE CLEAR OF ENGINE INTAKE AND EXHAUST AREAS PRIOR TO START AND DURING ENGINE RUN.

e. Perform engine starts per EWA Run-up Handbook.

e. 03637

f. After engine start and warm up, idle run engines and perform a visual inspection of each engines installed components, filters, lines and hoses for signs of fluid leakage.

f. 03637

g. Perform turbo compressor check as follows:

(Use Ground Air Start Unit if Engine runs are not accomplished)

1. Operate No. 1 turbo compressor only. Verify that #2 RPM indicator indicates "0" RPM. Operate #3 turbo compressor only. Verify that #4 RPM indicator indicates "0" RPM.

1. N/A
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2. If any turbo compressor indicates RPM when off its associated TC check valve should be visually inspected for stuck, damaged or missing flapper gates after completion of engine runs.

2. N/A
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DC-8				NET. NO. 5079 U	STATION KSLC	DATE 12-00
LOG PAGE 6092-09	INSTRUCTION			SIGN-OFF MECHANIC ONLY		

- h. Shutdown engines per the EWA Run-up Handbook and restore cockpit switches and circuit breakers to normal configuration.
- i. Visually inspect each engine inlet and exhaust for F.O.D., installed components for signs of leakage.
- j. Close and secure all cowings and access panels.

h. 03637

i. 03637

j. 03637

6. AIRCRAFT SERVICING

- a. Check oil level on all engines within 15 minutes after shutdown for proper level. Service engines with Exxon 2380 oil ONLY.

a. 03637

#1 Engine Qty 0 Added #2 Engine Qty 2 Added

#3 Engine Qty 2 Added #4 Engine Qty 2 Added

- b. Check engine oil cap "O" ring on all engines for serviceability, replace if required, secure cap.

b. 03637

- c. Check and service CSD oil on all engines as necessary. Use Exxon 2380 oil ONLY.

c. 03637

- d. Starter Servicing—all 50/60 series aircraft and 105WP: Check oil level in pneumatic starters. Service to full as required with Exxon 2380 oil ONLY. Secure servicing plug.

d. N/A
03637

NOTE: All EWA DC8-70 series aircraft, except 105WP, are equipped with assisted wet spline cavity starters P/N 3505154-22. No servicing is required at any interval other than at installation.

- e. Service main hydraulic reservoir, if necessary, with Skydrol 500B, or Chevron Hyjet IV-A. This intermix of fluids is approved on Douglas DMS/WPL-2014.

e. 03637

- f. Check and service turbo compressors (4 ea) with Exxon 2389 oil as required. (N/A DC8-70 series aircraft)

f. 03637

- g. Check and service air cycle machines (2 ea) with Exxon 2380 oil as required. (DC8-70 series aircraft)

g. 03637

- h. Service waste disposal system as required. Check drain valve for leakage. (Insure doughnut installed)

h. 03637

- i. Service spoiler reservoir with Skydrol 500B, or Chevron Hyjet IV-A. This intermix of fluids is approved on Douglas DMS/WPL-2014.

i. 03637

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DC-8				ACFT. NO. 6079W	STATION FSLC	DATE 8-12-00
LOG PAGE 8742-09	INSTRUCTION			SIGN-OFF MECHANIC ONLY		

j. Sump all fuel tanks and check for contamination.

j. 03364

Note: Fuel tank sumping should occur prior to refueling and no less than 4 hours (or Maximum Allowable Time) after the aircraft has landed.

8. POST INSPECTION CHECKLIST

a. Aircraft Exterior

a. 03364

- 1) All fuselage panels, doors, and fairings secure.
- 2) LH and RH wing panels secure.
- 3) All engine and pylon cowlings/panels secure.

b. Aircraft Interior

b. 03364

- 1) Doors and hatches secure.
- 2) Cargo loading system complete.
- 3) All switches/controls in their required positions.

c. Paperwork Completeness

- 1) - Engine oil added documented in log book.
- 2) Remove gear pins, open oxygen shutoff valves.
- 3) All Inspection Paperwork, Non-Routines, DMI's, log book entries, and part tags properly completed and accounted for.
- 4) Sign airworthiness release in aircraft maintenance log book.

1) 03364

2) 03364

3) 03364

4) 03364

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