

ATTACHMENT 13

MAINTENANCE GROUP CHAIRMAN'S FACTUAL REPORT DCA-07-MA-310

 $Right\ Engine\ Fuel\ \&\ Filter-Clean/Replace\ Work\ Card\ 7752,\ dated\ 3/16/2006$

RIGHT ENGINE FUEL & AIR FILTERS - CLEAN / REPLACE

Card No.

Page

1 of 12

Rev. Date 03/16/2006



Equipment MD80

Skill

System Workzone 72

73

Section 8

(SIGN NAME/EMPL. #)

Pattern

MECHANIC CREWCHIEF

SPECIAL SCHEDULE ENTER CARD NUMBER ON RUNUP CARD 0008.

MATERIALS & PARTS

CPN	Description	MPN	Qty/Unit	
5933314	Packing	69490D127	1	
5933313	Packing	69490D128	1	
5933109	Packing	69890-27	1 .	
5862098	Packing .	MS29513-013	1	
5862000	Packing	MS29513-241	1	
5932184	Cartridge	6667621	1	
	Nozzle PWA 33682 (or equivalent)			
5824484	Packing	M83248-1- 011	3	
5845404	Packing ·	M83248-1- 908	3	
5694330	Packing	M83248-1- 904	3	
5790850	Packing	MS29561-110	1	
5670940	Packing	M83248-1- 910	1	
5694328	Packing -	M83248-1- 906	1	
4080459	Packing	AS3578-016	1	

TOOLS & EQUIPMENT

CPN	Description	MPN	Qty/Unit
WRE9160	Torque Wrench		1
5671239	2-Gallon drain can		1
GAU9308	Source of clean dry compressed air with gauge and regulator		1
5996205	Petrolatum	VVP236	A/R
4157162	Solvent, Crystal Clean 100, PD680		A/R
5994075	Safety Wire, .020		A/R

NOTE:

This card must still be entered on Run Up Card 0008

Card No. Page 2 of 12 Rev. Date 03/16/2006 Equipment MD80 Skill System 73 Section 8 Workzone 72 (SIGN NAME/EMPL. #) Pattern INSP / American Airlines® MECHANIC CREWCHIEF Special Schedule: This card is not required if engine is zero time EHM, Program, or Check and Repair, installed during this C check. Card is applicable: _____ Card is not applicable: ____ 1. Prepare for Filter Removal/Replacement WARNING: EXERCISE CARE TO AVOID STRAKES WHEN WORKING IN ENGINE AREA WITH COWL DOORS OPEN OR INJURY TO PERSONNEL WOULD RESULT. CAUTION: TO PREVENT STRUCTURAL DAMAGE, USE HOLD-OPEN RODS ON EACH COWL DOOR. MAKE CERTAIN CIRCUIT BREAKERS ARE OPEN **WARNING:** BEFORE ATTEMPTING MAINTENANCE PROCEDURES. INADVERTENT ENGINE START OR THRUST REVERSER OPERATION COULD RESULT IN SERIOUS INJURY TO PERSONNEL. Tag throttle/thrust reverser lever, and open and tag following A. circuit breakers. CIRCUIT BREAKER **SERVICE** PANEL IDENT. LOCATION ENGINE START PUMP DC Lower EPC TRANS-FER **BUS** DC **ENGINE IGNITION or ENGINE START VALVE** Lower EPC TRANS-**FER** BUS AC BUS CONT IGNITION or ENGINE IGNITION Upper EPC B. Place thrust reverser control valve in dump position and install safety pin. **WARNING:** DO NOT MOVE FIRE CONTROL HANDLE BEYOND FUEL AND HYD OFF POSITION. INADVERTENT DISCHARGE OF FIREX AGENT CONTAINERS WILL OCCUR IF HANDLE IS ACCIDENTALLY ROTATED TO AGENT 1 OR AGENT 2 POSITION. C. Pull fire control handle located on upper instrument panel.

Card No. Page 3 of 12

Rev. Date 03/16/2006



Equipment MD80 System 73

72

Workzone

Section 8 Pattern

0

Skill

CREWCHIEF

(SIGN NAME/EMPL. #) MECHANIC

2. Main Fuel Control Filter Check and Clean

NOTE:

Main filter group includes fuel control main filter and servo fuel filter.

- Remove filter (Ref. Figure 1). Α.
 - Obtain suitable container to catch fuel from filter housing. (1)

CAUTION: WHEN REMOVING FILTER, CHECK TO SEE IF O-RINGS ARE MISSING OR CUT. O-RING FRAGMENTS CARRIED INTO FUEL CONTROL COULD CLOG PASSAGES RESULTING IN FUEL CONTROL FAILURE.

- (2) Remove capscrew and washer securing filter retaining rings, then remove retaining rings.
- (3) Thread long shank bolt into bolt hole in center of valve cap and, using bolt as puller, remove filter.
- Remove preformed packing from valve cap and filter. (4)
- Pull out filter, inspect and clean filter.
- В. Install cleaned filter (Ref. Figure 1).
 - Lubricate new preformed packing(s) lightly with petrolatum (VV-P-236) and install on valve cap and filter. (CPN 5933314) (CPN 5933313) (CPN5933109).
 - (2)Insert cleaned filter into fuel control housing. Install retaining rings and secure with flat washer and capscrew. Torque 60 to 80 inch-pounds. Safety capscrew with .020 lockwire.
- Main Fuel Pump filter Cartridge Replacement and Delta Pressure 3. Switch Check
 - A. Remove filter cartridge (Figure 2).
 - Pull fire handle out and install restraining fixture, P/N DTE1945.
 - (2) Remove drain plug from center rear of fuel bridle. Discard O-ring.

NOTE:

Be prepared to catch fuel in container with approximate capacity of 5 US gallons (4.16 Imperial gallons or 18.93 liters).

- Remove filter cover valve from valve body and allow (3)residual fuel to drain from filter.
- Remove filter cover, pull out filter cartridge and discard. (4)

Card No. Page 4 of 12

Rev. Date 03/16/2006

American Airlines®

Equipment MD80 System 73 Workzone

Skill 0 Section 8 Pattern



CREWCHIEF

(SIGN NAME/EMPL, #) INSP./ MECHANIC

- Test fuel filter differential pressure switch (Ref. Figure 3). В.
 - Prepare test equipment; source of clean dry compressed air or nitrogen, pressure regulator, and 0 to 25 psig pressure gage. Gage should have ±1 percent accuracy with dial marked in 1/4 psi increments.
 - (2)Obtain fuel filter differential pressure switch tester from tool room. Connect to pressure source test line and lightly lubricate rubber seat at tip of nozzle with petrolatum (VV-P-236).
 - Insert nozzle inside filter housing, and position tip of nozzle in high pressure port for differential pressure switch. Hold nozzle firmly in place.

CAUTION: DO NOT EXCEED 20 PSIG GAGE PRESSURE.

- Assure FUEL FILTER PRESSURE DROP CAUTION circuit (4) breaker is closed.
- (5) Slowly apply pressure through nozzle. Check that FUEL FILTER PRESSURE DROP CAUTION LIGHT on engine caution annunciator panel comes on between 3.0 and 8.0 psig.
- Slowly decrease line pressure and check that FUEL (6)FILTER PRESSURE DROP CAUTION LIGHT goes out between 6.0 and 2.0 psig.
- (7)Shut off air pressure and remove nozzle from fuel filter housing.
- C. Install filter cartridge.
 - Lubricate new O-ring (CPN 5862000) with light coat of petrolatum and install on filter cover.
 - Position new filter cartridge (CPN 5932184) on cover (2) assembly and insert into filter housing. Tighten cover assembly to 75 to 100 inch-pounds torque.

NOTE:

It requires approximately 19 complete turns of the cover assembly jam nut to ensure proper seating of the cover inside the filter housing.

- Lubricate O-ring (CPN 5862098) with light coat of (3)petrolatum and install on cover valve. Install cover valve into valve body and tighten. Insert and lock cotterpin.
- (4) Safety cover assembly with lockwire.

Card No. Page 5 of 12

Rev. Date 03/16/2006



Equipment MD80

Skill 0

System Workzone

73 72 Section 8

Pattern

(5)Lubricate new O-ring with light coat of petrolatum and install on drain plug. Install drain plug in fuel bridle and safety with lockwire.

Remove fire handle restraining tool and push fire handle in.

CAUTION:

BE SURE THAT THE DRAIN HOLE IN THE BOTTOM OF THE CONDENSATION TRAP PLUG IS NOT BLOCKED BY THE LOCKWIRE USED TO SAFETY THE PLUG TO THE TRAP (AN OPEN DRAIN HOLE IS NECESSARY TO LET WATER OUT OF THE TRAP). INSTALL LOCKWIRE THROUGH ONLY ONE SIDE OF THE PLUG, NOT FULLY ACROSS THE DRAIN HOLE IN THE BOTTOM OF THE PLUG.

D. Drain the Fuel Control (PS4) moisture trap by removing and reinserting the drain plug.

NOTE:

DO NOT insert lockwire through moisture trap bleed hole to confirm accumulated moisture has been drained from trap.

- 4. Starter Air Shutoff Valve Filter (Ref. Figure 4)
 - Remove, clean, and reinstall filter. A.
 - (1) Disconnect sensing line from filter.
 - (2)Remove screen-fitting and metal O-ring from filter body. Check metal O-ring for flatness and general condition. Metal O-ring may be reused if in good condition.
 - (3)CLEANING OPERATIONS USING SOLVENT SHOULD BE PERFORMED IN A WELL-VENTILATED ATMOSPHERE. EXERCISE NORMAL SAFETY PRECAUTIONS DURING USE.
 - (4) Clean screen-fitting with solvent, P-D-680.
 - Dry screen-fitting with clean, dry compressed air. (5)
 - (6)Install screen-fitting and metal O-ring in filter body. Tighten to torque of 420 to 540 inch-pounds.
 - (7) Connect sensing line to filter.
- 5. Check Starter Air Shutoff Valve Position Indicator Switch Connection.
 - Disconnect plug from the position indicator switch on the Starter Air Shutoff Valve (Ref. Figure 4, View A)
 - (1)Check plug for any loose wires or contacts.
 - (2)If loose wires or contacts are discovered, repair per Ch. 20 of the SSWD (Standard Wiring Practices Manual). If no repair required, N/A this step.

12010 100	MF/	FМ	7 5 Pi
(SIGN NA		INS	P./
MECHANIC	CR	EW	CHIE
	٠ا		
20,232,24			
	1		
	J		
			¥.
			-1
			7 T.
	5-900900000		
	5-9009000000		
	5-9009000000		
	5-9009000000		
	5-9009000000		
	5-9009000000		
	5-9009000000		
	5-9009000000		

Card No. Page 6 of 12 Rev. Date 03/16/2006 **Equipment MD80** Skill 0 System 73 Section 8 Workzone 72 (SIGN NAME/EMPL. #) Pattern INSP./ American Airlines® MECHANIC **CREWCHIEF** (3)Ensure contacts on plug and switch are clean. (4) If necessary, clean contacts per Ch. 20 of the SSWD (Standard Wiring Practices Manual). If cleaning is not required, N/A this step. B. Reconnect plug to the position indicator switch and safety with lockwire. 6. Replace banjo fitting O-rings. Replace 3 O-rings on banjo fitting at LV3 port. M83248/1-011 CPN 5824484 Packing M83248-1-908 CPN 5845404 Packing M83248-1-904 CPN 5694330 Packing В. Replace 3 O-rings on banjo fitting at LP5 port. M83248/1-011 CPN 5824484 Packing M83248-1-908 CPN 5845404 Packing M83248-1-904 CPN 5694330 Packing C. Replace 3 O-rings on banjo fitting at LP6 port M83248/1-011CPN 5824484Packing M83248-1-908CPN 5845404Packing M83248-1-904CPN 5694330Packing D. Replace 3 O-rings on banjo fitting at LD5 port MS29561-110 CPN 5790850 Packing M83248-1-910 CPN 5670940 Packing M83248-1-906 CPN 5694328 Packing E. Add to card 0008 for leak check of banjo fittings on Run-up. 7. Replace packing on fuel/oil cooler: Replace packing, CPN 4080459, on the aft end of fuel/oil cooler. A. (See Figure 5) B. Add to card 0008 for leak check of fuel/oil cooler lines. 8. Restore Engine Controls and Circuit Breakers. Remove tools, equipment, loose hardware, spilled fluid, and A.

B.

debris from maintenance area.

Close fire control handle, located on upper instrument panel.

Card No. **7752**Page 7 of 12

Rev. Date 03/16/2006

American Airlines®

Equipment MD80

Skill 0

System 73 Workzone 72

Section 8

Pattern

* 7 7 5 2 *

(SIGN NAME/EMPL. #)
INSP./
MECHANIC CREWCHIEF

WARNING:

MAKE CERTAIN THROTTLE/THRUST REVERSER LEVER POSITION CORRESPONDS WITH THRUST REVERSER DOOR POSITION AND THAT ALL PERSONNEL AND EQUIPMENT ARE WELL CLEAR OF THRUST REVERSER BEFORE OPERATION. ANY TIME THAT THRUST REVERSER CONTROL VALVE IS NOT IN DUMP POSITION, 3000 PSI (20,700 KPA) IS AVAILABLE AND WILL MOVE REVERSER DOORS IN RESPONSE TO THROTTLE/THRUST REVERSER LEVER MOVEMENT REGARD LESS WHETHER ANY ELECTRICAL OR HYDRAULIC POWER IS SUPPLIED TO AIRCRAFT.

Remove tag from throttle/thrust reverser lever, and remove tags

and close circuit breakers identified in Step 1.A.

CIRCUIT BREAKER

C.

PANEL	SERVICE	IDENT.	LOCATION
DC TRANS- FER BUS	ENGINE START PUMP		Lower EPC
DC TRANS- FER BUS	ENGINE IGNITION or ENGINE START VALVE		Lower EPC
AC BUS	CONT IGNITION or ENGINE IGNITION		Upper EPC

9. Enter card number on Card 0008 (Run-up) for leak check of fuel filters.

Card No.

Page

8 of 12

Rev. Date 03/16/2006

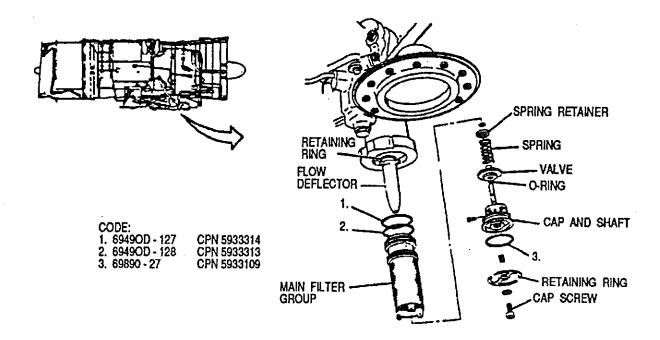


Equipment MD80 System

73 Workzone 72 Skill 0 Section 8

Pattern





Main Fuel Control Filter - Removal/Installation Figure 1:

Card No. **7752**Page 9 of 12

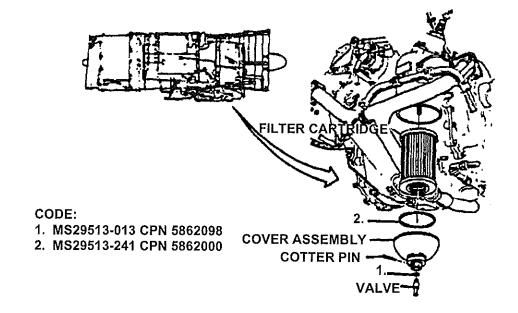
Rev. Date 03/16/2006

American Airlines®

Equipment MD80 System 73 Workzone 72

Skill 0 Section 8 Pattern





Fuel Pump Filter - Removal/Installation Figure 2:

Card No. 7752

Page

10 of 12

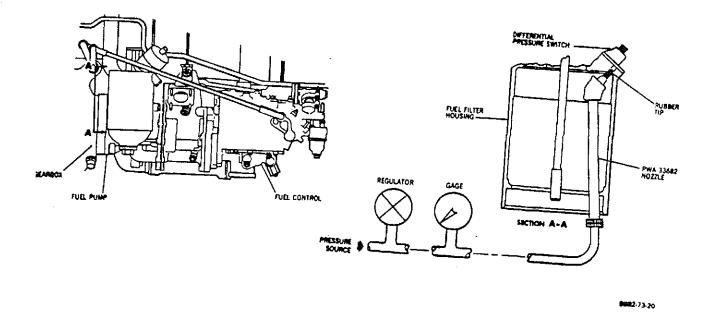
Rev. Date 03/16/2006



Equipment MD80 System 73 Workzone 72

Skill 0 Section 8 Pattern





Fuel Filter Differential Pressure Switch - Check Figure 3:

Card No. 7752

Page

11 of 12

Rev. Date 03/16/2006

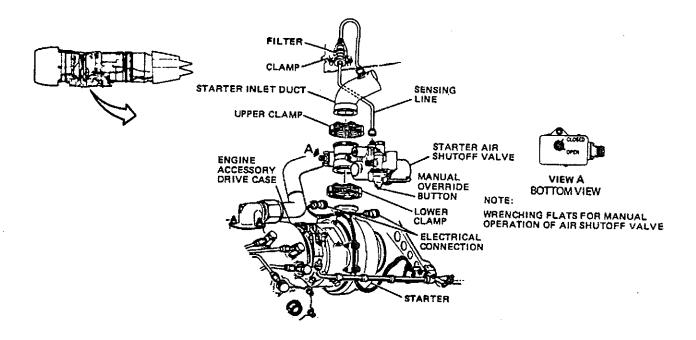


Equipment MD80 System 73

System 73 Workzone 72 Skill 0 Section 8

Pattern





8882-90-7

Starter Air Shutoff Valve - Installation Figure 4:

Card No. **7752**Page 12 of 12
Rev. Date 03/16/2006

American Airlines®

Equipment MD80 System 73 Workzone 72

Skill 0 Section 8 Pattern



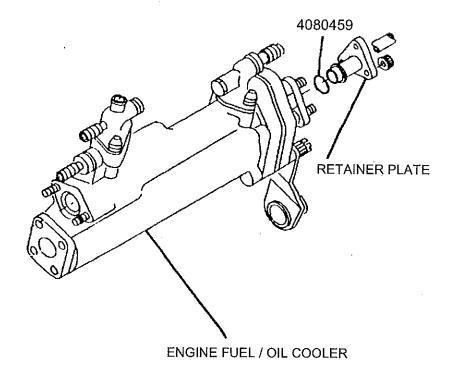


Figure 5: