

DOCKET NO. SA-510

EXHIBIT NO. 11F

NATIONAL TRANSPORTATION SAFETY BOARD

CAMPAIGN DIRECTIVE 29X00800A

**USAir**

## CAMPAIGN DIRECTIVE

CD No. 29X00800 AATA 29-00DATE: 10/14/94

AIRCRAFT/ENGINE TYPE	TITLE: HYDRAULICS - FILTER ELEMENT REPLACEMENT - STANDBY PRESSURE	AD/FAR No.
737-200/300/400	Reason for Request:	N/A
Weight Change	This CD provides for a one time removal and replacement of the standby hydraulic system pressure filter element (one per A/C). The removed elements will be gathered by Engineering for laboratory analysis.	<input type="checkbox"/> ETOPS Requirement
N/A		PROJECT No. <u>44723</u>
Est. Manhours <u>2.0</u>		References: CD 29H00796 & 29X00801 737 AMM 29-15-81 737 IPC 29-15-81-02 item 85
Est. Downtime <u>2.0</u>		

## SPECIAL INSTRUCTIONS

- PLANNING:** Accomplish this CD no later than December 31, 1994. This CD may be accomplished at any maintenance station where parts and labor are available.
- RECORDS:** This CD is not eligible for logbook only sign-offs. Track accomplishment of this CD by aircraft tail numbers.
- MATERIAL SERVICES:** A parts requisition form has been completed and sent to order parts.
- MAINTENANCE PROGRAMS:** Create a job card based on the work instructions from this CD to comply with MPD item B29-15-81-2A. This job card should be accomplished at every "C" check.

Prepared by Jason R. KrasnyChecked by W. T. WinklerApproved by M. Rudo

## Material Req'd to Accomplish:

Quantity	CCN	Description
1	147-0168	Element, Filter
1	731-7823	Packing
1	731-2009	Retainer, Back-up Ring
1	731-9248	Packing, O-ring
2	127-0446	Retainer, Ring

## Parts Removed:

Quantity	CCN	Description	Disposition
1	147-0168	Element, Filter	Retain, label and ship to Engineering Attn: Jason Krasny PIT Hanger 3 Room 346

PRIORITY	USAir Requirement <input checked="" type="checkbox"/>	NO LATER THAN : _____ CHECK _____ FLIGHT HOURS _____ CYCLES See Note to Planning _____ DAYS _____ MONTHS _____ YEARS
	FAA Mandatory <input type="checkbox"/>	

## WORK INSTRUCTIONS

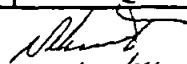
Accomplished By \_\_\_\_\_ Checked By \_\_\_\_\_

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## CAMPAIGN DIRECTIVE

## WORK INSTRUCTIONS (continued)

1. Open and tag the following circuit breakers: <b><u>737-300/400 Aircraft Only:</u></b> (a) On the P6-2 Circuit Breaker Panel: FLIGHT CONTROL SHUTOFF VALVES STBY RUD <b><u>All 737-200/300/400 Aircraft:</u></b> (b) On the P6-11 Circuit Breaker Panel: STBY HYD PUMP NORMAL (c) On the P6-12 Circuit Breaker Panel: STBY HYD PUMP (ALT)		NOT REQ'D
2. <b><u>FILTER ELEMENT REMOVAL (Refer to Figure 1 and 2):</u></b> 1. Remove the standby pressure filter bowl. 2. Remove the filter element. <b><u>Note:</u></b> Careful labeling and shipment to the proper destination are important. 3. Label the filter element with the the A/C TAIL NUMBER and the DATE. Package the removed filter element and send it to Engineering Attn: Jason Krasny, PIT Hanger 3, Mail stop PIT/D346. 4. Discard the O-rings and backup rings and rinse the filter bowl with a small amount of hydraulic fluid only.		NOT REQ'D
3. <b><u>FILTER ELEMENT INSTALLATION (Refer to Figure 1 and 2):</u></b> 1. Install the O-ring and the backup ring in the groove on top of the filter element. 2. Install the backup ring, O-ring and backup ring in the groove of the standby pressure module housing. 3. Lightly apply hydraulic fluid to the filter bowl threads and the O-rings. 4. Fill the filter bowl approximately half full with hydraulic fluid and place the new filter element in the bowl. Thread the bowl onto the modular housing. 5. Tighten the filter bowl to 50-200 inch pounds and install lockwire.		NOT REQ'D
4. Pressurize the standby hydraulic system and examine the filter for leaks.		NOT REQ'D
5. Supply electric power and close the circuit breakers that were opened in step 1.		NOT REQ'D
6. Put the FLT CONTROL A switch to STBY. Slowly operate the rudder through a complete cycle.		NOT REQ'D
7. Put the FLT CONTROL A switch to ON and remove electrical power.		NOT REQ'D
8. Service the hydraulic reservoirs to replenish fluid and air pressure.		NOT REQ'D

  
 10/26/94

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## CAMPAIGN DIRECTIVE

CD No. 29X00800 A

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WORK INSTRUCTIONS (continued)

All Campaign Directive Work Instructions accomplished, all sign-offs legible and information completed.

AIRCRAFT \_\_\_\_\_ STATION \_\_\_\_\_ DATE \_\_\_\_\_

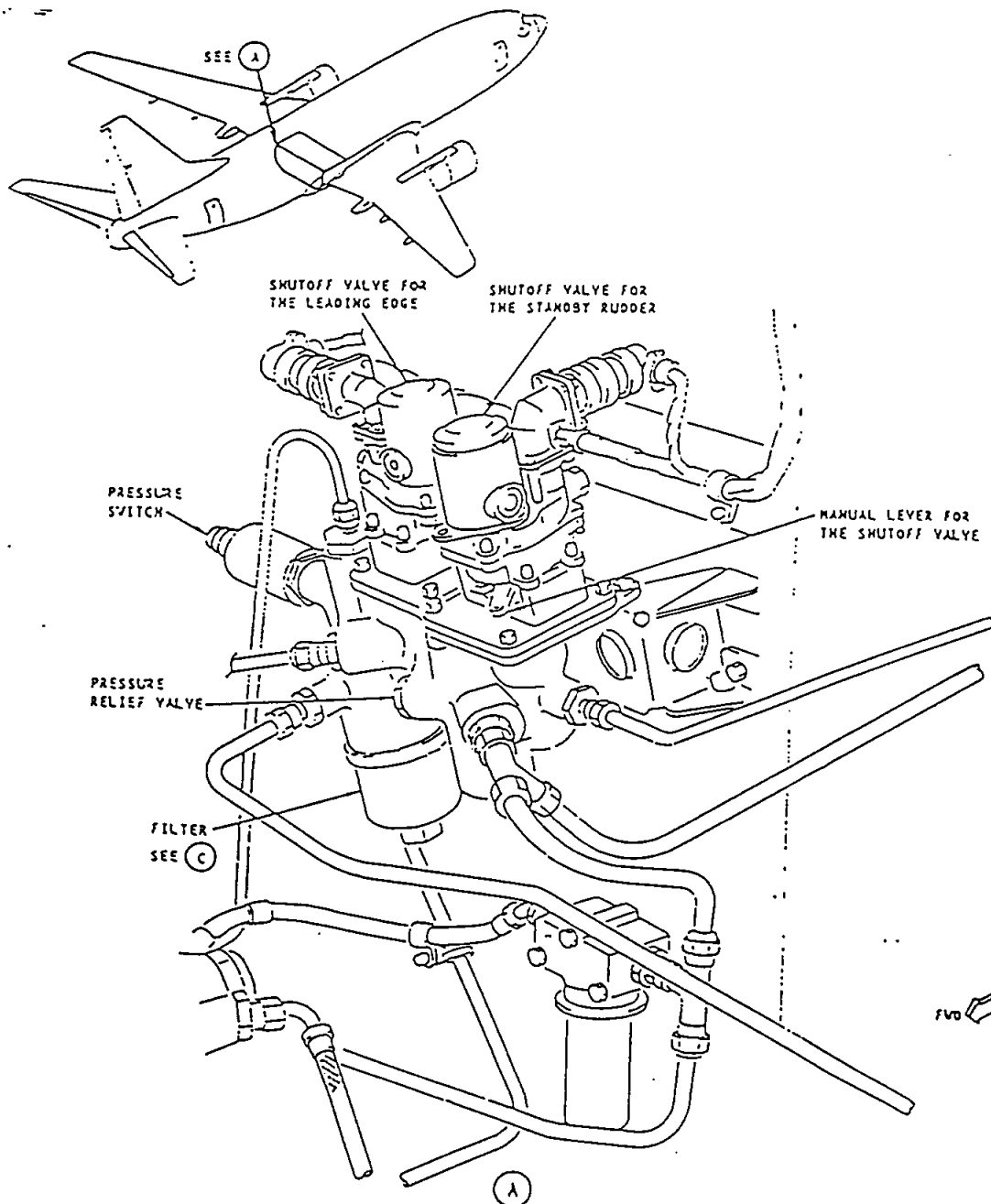
Logbook Page Number \_\_\_\_\_

LEAD MECHANIC OR SUPERVISOR \_\_\_\_\_ EMP. # \_\_\_\_\_

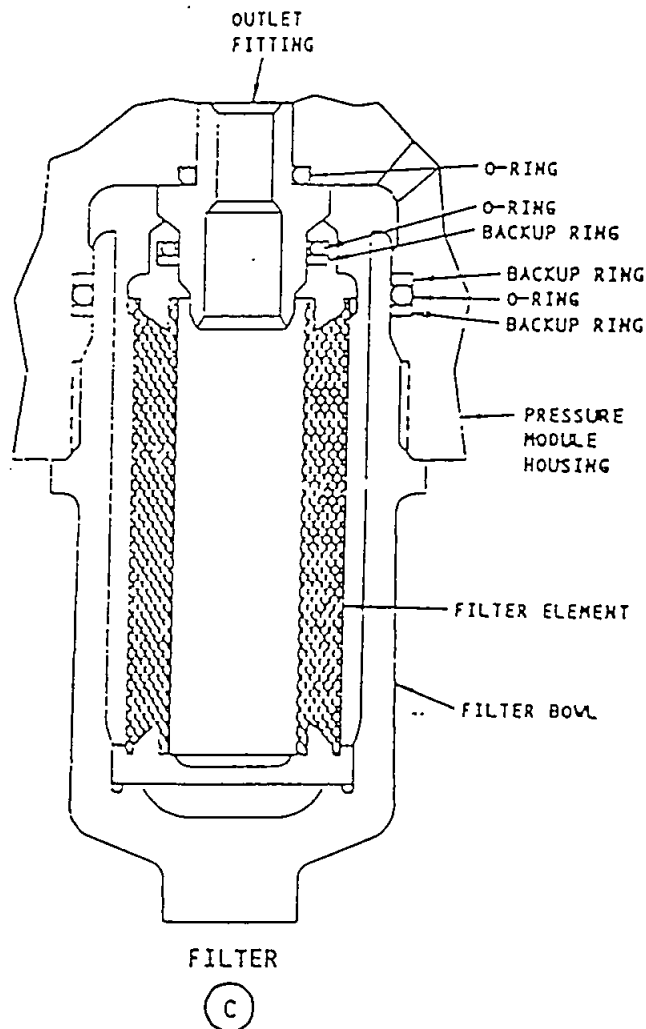
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## CAMPAIGN DIRECTIVE

## WORK INSTRUCTIONS (continued)

**FIGURE 1 - STANDBY HYDRAULIC SYSTEM PRESSURE MODULE**




## WORK INSTRUCTIONS (continued)

**FIGURE 2 - STANDBY HYDRAULIC SYSTEM PRESSURE FILTER INSTALLATION**

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## CAMPAIGN DIRECTIVE

## REVISION RECORD

Rev. A by  10/25/94 Checked by  10/26/94 Approved by  10/26/94  
Jason R. Krasny/date W. T. Winkler/date M. Rudo/date

DESCRIPTION: Revision "A" includes labeling instructions so that the removed filter element can be identified with the A/C tail number and the date the CD was accomplished (see work step 2 item #3).

RETROACTIVITY: None

TITLE: HYDRAULICS - FILTER ELEMENT REPLACEMENT - STANDBY PRESSURE

[illegible]



**USAir****CAMPAIGN DIRECTIVE****AIRCRAFT EFFECTIVITY SHEET****TITLE: HYDRAULICS - FILTER ELEMENT REPLACEMENT - STANDBY PRESSURE**

10-25-94	<u>737-200:</u>	81	Rev "A"
	200, 203, 204, 205, 207, 208, 209, 211, 212, 213, 214, 215, 216, 217, 219, 220, 221, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 251, 252, 253, 254, 255, 256, 257, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288		
	<u>737-300:</u>  300, 301, 302, 327, 329, 334, 335, 336, 337, 338, 339, 340, 341, 342, 346, 349, 350, 351, 352, 353, 354, 355, 356, 371, 372, 373, 374, 375, 376, 383, 384, 385, 387, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 558, 559, 560, 562, 563, 573, 574, 575, 576, 577, 578, 579, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592	100	
	<u>737-400:</u>  404, 405, 406, 407, 408, 409, 411, 412, 413, 415, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785	54  Total = 235	