

DOCKET NO.: SA-515

EXHIBIT NO. 11D

**NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.**

MAINTENANCE GROUP CHAIRMAN'S FACTUAL REPORT

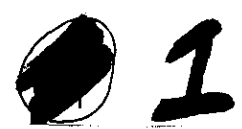
ATTACHMENT 3

**PRATT & WHITNEY SUPPLIERS REPORT
OF NONCONFORMANCE**

(3 PAGES)

470B, 335Z, 453S, 707, 456F

23. SHOW NO. 28801		UNITED TECHNOLOGIES PRATT & WHITNEY AIRCRAFT		SUPPLIER'S REPORT OF NONCONFORMANCE-SRON		27. TYPE A 2	CAUSE A 22	TYPE B 1	CAUSE B 22	TYPE C 2	CAUSE C 22
1. SUPPLIER'S RPT. NO. 3114		2. SUPPLIER'S CODE 33964	3. PART NUMBER 5000501	CLASS F	CHG. LTR. C	P.I.A. NUMBER 5000421		CHG. LTR. C			
PAGE 1 OF 4 PAGES		4. SUPPLIER'S NAME AND ADDRESS VOLVO FLYGMOTOR AB S-461 81 TROLLEKATTAN SWEDEN, <i>PL 4/4/89</i>									
5. RECEIVING STA.-PWA BLDG 220 MIDDLETOWN J			6. ENGINE MODEL JT8D	7. PART NAME HUB FRONT			8. PWA NUMBER FOR 19 17		9. APPL. TO HANS LUFMAN.		
10. NONCONFORMANCE ✓ S/N R32971, 33014 <i>e</i> DIA Ø 12.659/12.661 IS .0002 O/MAX (OD O/MAX, REF. TO FIT 135 BETWEEN HUB FRONT AND 1.5 COMPR. DISK, .000 - .004T, REQ PART TO BE ACC. AS IS.) B/P LOC: 7-D											
ITEM A	11. PCS INSP. 4			11A. PCS. NONCONF. 1			11B. PCS. AFFECTED 2			12. CHARACTER. NO. 7	
	13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION COMPENSATION IN PROCESS SHEET BECAUSE OF SHRINKING (DIA MACHINED O/MAX), THIS PART DID NOT SHRINK AS MUCH AS CALCULATED.						INVESTIGATION AND FOLLOW UP IS GOING ON IN PURPOSE TO FIND OUT WHY THIS DIA. NOT ALWAYS SHRINK AS CALCULATED. C/A DATE 3/17/89				
NONCONFORMANCE ✓ S/N R32953 DIA Ø 12.669/12.661 IS ADJUSTED TO B/P REQ. AFTER TUMBLING OP. (OP. 220) THE HUB IS TESTED AND ACCEPTED IN NOT. B/P LOC: 7-D											
ITEM B	11. PCS INSP. 4			11A. PCS. NONCONF. 1			11B. PCS. AFFECTED 1			12. CHARACTER. NO. 7.1	
	13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION SEE ITEM A AT PAGE 1.										
NONCONFORMANCE ✓ S/N R32979, R32962, R32965 DIA Ø 16.759/16.761 IS .0006 O/MAX (OD O/MAX, REF TO FIT 188A BETWEEN HUB FRONT AND 1st. STAGE COMPR. DUCT, .004T-.008T, REQ PARTS TO BE ACC. AS IS) S/N R32962 & R32965 ARE .0001 O7MAX REF. SRON 26726(3073A) B/P LOC: 7-C R33014											
ITEM C	11. PCS INSP. 8			11A. PCS. NONCONF. 24			11B. PCS. AFFECTED 24			12. CHARACTER. NO. 8	
	13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION HL 4-2289 SEE ITEM A AT PAGE 1.										
15. SUPPLIER'S REP. DATE		16. PWA QUAL. ASSUR. REP.		17. GOVT. REP.		18. PWA MUNCA. DATE		19.			
ACCEPT 5/26/89											
DISPOSITIONAL ITEM	ACCEPT										
	ACCEPT										
	ACCEPT										
K B CODE	CHG. REV.	CHG. DATE	NONCONFORMANCE CODE	OWB LOC	CHARACTER. CONC.	INCLS. NO.	DEPT. SUPP.	FT. REPAIR DWG. OR TRAV. NO.	EXTENT ALLOWED	PIECES/DATE ALLOWED	SCHEDULE
	A	N	Ø 12.659-12.661 1D	7D	7	2	-	-	APSRV	2	
	B	N	Ø 12.659-12.661 1D	7D	7.1	1	-	-	APSRV	1	
	C	N	Ø 16.759-16.761 1D	7C	8	24	-	-	APSRV	4	
24. REC'D DATE		DATE		25. MA. ENGINEER		DATE		26. GOVT. REP.		27. SHOW NO.	
5/26/89				[Signature]		5/26/89		NR		28801	



23. ORGN. NO. 28801		 UNITED TECHNOLOGIES PRATT & WHITNEY AIRCRAFT		SUPPLIER'S REPORT OF NONCONFORMANCE-890N					
1. SUPPLIER'S PRT. NO. 3114		2. SUPPLIER'S CODE 3. PART NUMBER 33964 5000501		CLASS	CHG. LTR.	PILA NUMBER 5000421		CPCL. LTR.	
PAGE 2 OF 4 PAGES		4. SUPPLIER'S NAME AND ADDRESS VOLVO FLYGMOTOR AB S-46181 TROLLHATTAN SWEDEN.						DL 4/4/89	
3. RECEIVING STA. PWA BLOG 220 MIDDLETOWN J.		8. ENGINE MODEL JT8D		7. PART NAME HUB FRONT		6. TOT. NONCON. PLS. 15 11		5. APPROV. TC HANS LOFMAN	

10. NONCONFORMANCE S/N R32953, R32968, R32970, R32971, R32982 B/P LOC: 7-C /// S/N R33022V		Ø 16.759/16.761 DIA IS ADJUSTED TO B/P REQ. AFTER TUMBLING OP. (OP:220) THE PARTS ARE TESTED AND ACCEPTED IN NDT.						12. CHARACTER. NO. 8:1	
11. POS. IMP.		11A. POS. NONCON.		11B. POS. AFFECTED					
6		8		6					
13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION SEE ITEM A AT PAGE 1.									

NONCONFORMANCE S/N R32977 B/P LOC: 6-B		DIM. .095/.105 IS .020 O/MAX						CHARACT. NO. 46	
11. POS. IMP.		11A. POS. NONCON.		11B. POS. AFFECTED					
4		1		1					
13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION TOOL CRASH, THE OPERATOR USED WRONG TOOL-LENGTH THE OPERATOR IS INSTRUCTED AND TOLD TO BE MORE ACCURATE: LB-731/12 RS 706C C/A DATE 3/17/89									

NONCONFORMANCE S/N R32961 B/P LOC: 6-B		RADI .020/.030, 24 PLACES IS .0094 O/MAX AT ALL 24 HOLES.						CHARACT. NO. 66	
11. POS. IMP.		11A. POS. NONCON.		11B. POS. AFFECTED					
2		1		1					
13. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION DEBURRING ERROR DONE BY THE OPERATOR THE OPERATOR IS INSTRUCTED LB-731/13 RS 706C C/A DATE: 3/16/89									

13. SUPPLIER'S REP. DATE 3/21/89		18. PWA QUAL. ABSVA. REP.		17. GOV'T REP.		16. PWA PURCH. DATE		15. EXT.	
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14. ACCEPT

14. ACCEPT

GRIR 122752

14. ACCEPT

NO.	ORGN. CODE	SER. CODE	NONCONFORMANCE CODE	DWG. LOC.	CHARACTER. NO.	PROB. NO.	DEPT./PLANT	11. PARTIAL DNG. OR TRAV. NO.	EXTENT ALLOWED	14. DATE	SCHEDULE
A	N	0	16.759-16.761 DIA	7C	8:1	6	-	-	APSRON	6	
B	3	0	0.095-105 DM	6B	46	1	-	-	APSRON		
C	3	0	0.020-030 R	6B	66	1	-	-	APSRON		

24. SIGNATURE [Signature]		DATE 5/26/89		25. WR. ENG. NAME [Signature]		DATE 5/26/89		26. GOV'T REP. NR		DATE		23. ORGN. NO. 28801	
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PWA FORM 1452 REV. 7-83

1-PURCHASING COPY

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SUPPLIER'S REPORT OF NONCONFORMANCE IS AN UNLISTED MECHANISM OF THE QUALITY IMPROVEMENT PROGRAM. IT IS A MECHANISM FOR IDENTIFYING AND CORRECTING DEFECTS IN THE MANUFACTURING PROCESS. THIS FORM IS NOT TO BE USED FOR REPORTING DEFECTS IN THE SUPPLIER'S MANUFACTURING PROCESS. ANY SUPPLIER REPORTING DEFECTS IN THE SUPPLIER'S MANUFACTURING PROCESS MUST BE REPORTED TO THE QUALITY IMPROVEMENT PROGRAM. THIS FORM IS NOT TO BE USED FOR REPORTING DEFECTS IN THE SUPPLIER'S MANUFACTURING PROCESS.

2. SRON NO. **28801**

 **UNITED TECHNOLOGIES PRATT & WHITNEY AIRCRAFT** SUPPLIER'S REPORT OF NONCONFORMANCE-SRON

37. TYPE A	CAUSE A	TYPE B	CAUSE B	TYPE C	CAUSE C
1	17				

1. SUPPLIER'S APT. NO. 3114	1. SUPPLIER'S CODE 33964	2. PART NUMBER 5000501	CLASS F	CHG. LTR. F	PILA NUMBER 5000421	CHG. LTR. C
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PAGE 31 OF 4 PAGES

4. SUPPLIER'S NAME AND ADDRESS
VOLVO FLYGMOTOR AB S-46181 TROLLHATTAN SWEDEN

RECEIVING STA./PWA
BLDG 220 MIDDLETOWN NJ

5. ENGINE MODEL
JT80

7. PART NAME
HUB FRONT

8. TOT. NONCONF. POL. IS ATTN TO
10 11 HANS LUFMAN

9. NONCONFORMANCE
S/N R32977
8/P LOC: & B

DRESSED MARK AT DIA 13.335/13.325, TESTED AND ACCEPTED IN NOT, SEE APPENDIX "1"

11. PCS. INSP. 4	12. PCS. NONCONF. 1	13. PCS. AFFECTED 1	14. CHARACT. NO. 72
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15. CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION

HANDLING DAMAGE

**QUALITY DRIVE IS GOING ON:
C/A DATE 3/17/89 RS 7060.**

NONCONFORMANCE

PCS. INSP.	PCS. NONCONF.	PCS. AFFECTED	CHARACT. NO.
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CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION

NONCONFORMANCE

PCS. INSP.	PCS. NONCONF.	PCS. AFFECTED	CHARACT. NO.
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CAUSE-CORRECTIVE ACTION AND DATE OF IMPLEMENTATION

16. SUPPLIER'S REP. DATE 3/20/89	17. PWA QUAL. ASSUR. REP.	18. GOVT REP.	19. PWA PURCH. DATE	20. EXT.
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16. ACCEPT

SRON NO.	ITEM	ENG CODE	SNR CODE	NONCONFORMANCE CODE	ENG LOC	CHARACTER (STRIC NO)	PIECES NO	DEPT. BLURR	11. REPAIR ENG OR TRAV. NO.	12. DEFECT ALLOWED	13. DATE ALLOWED	SCHEDULE
A	F	0	1	13.325	-	72	1	-	-	ASSEM	1	
B												
C												

21. CIRC. REP. DATE 5/20/89	22. SUPPLIER'S REP. DATE 3/20/89	23. GOVT REP. DATE NR	24. SRON NO. 28801
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25. PURCHASING COPY

SUPPLIER'S THAT MANUFACTURE PARTS IN COMPLIANCE WITH THE REQUIREMENTS OF MIL-STD-883C (1) AS LISTED ABOVE OR TO OTHERWISE ACCREDITED PRIVATE AGENCY AIRCRAFT GROUP QUALITY PROGRAM AUTHORIZATION OR THIS FORM IS TO BE USED FOR THE PURCHASE OF PARTS FROM A SUPPLIER WHOSE QUALITY CONTROL SYSTEM IS SUBJECT TO DISPOSITION COMPLIANCE AND SUPPLIER'S AGREEMENT ESTABLISHED AT A TIME (BUT NOT THE RETURN OF PARTS OR MATERIALS) BY PWA FOR WHICH IT APPLIES TO SUPPLIERS MADE AGAINST THIS SOURCE THAT INCLUDES AT LEAST AND WHO AFTER THE YEAR

