

Carson Helicopter Services
Weaverville, California
August 5, 2008
LAX08PA259

National Transportation Safety Board
Washington, D.C.

Attachment 4

Sikorsky Email granting permission to use proprietary seat drawings
and
Sikorsky Aircraft Design Drawings
of Burns Aero 650 and Aerosmith Seats

4 Pages

Keegan Cynthia

From: Lowenstein, Christopher O SIK [REDACTED]
Sent: Thursday, May 21, 2009 2:50 PM
To: Keegan Cynthia
Cc: Struhsaker Jim
Subject: RE: LAX08PA259, Sikorsky S-61N Helicopter, N612AZ, August 5, 2008, Operated by Carson Helicopter Services

Hello Cindy-

I have received approval from our Contracts & Counsel, Intellectual Property, and Export Licensing for you to include in your factual report, the drawings that are listed in your email below (with the engineer names/signatures redacted) as you proposed.

Your other question on initial design loads and attachment is still being worked in Engineering. As some of this data is about 50 years' old, it is taking some time to retrieve and analyze the archived data. I will let you know as soon as I receive the answers.

Thanks
-Chris

Chris Lowenstein
Chief - Aircraft Safety Investigation
Sikorsky Aircraft Corporation

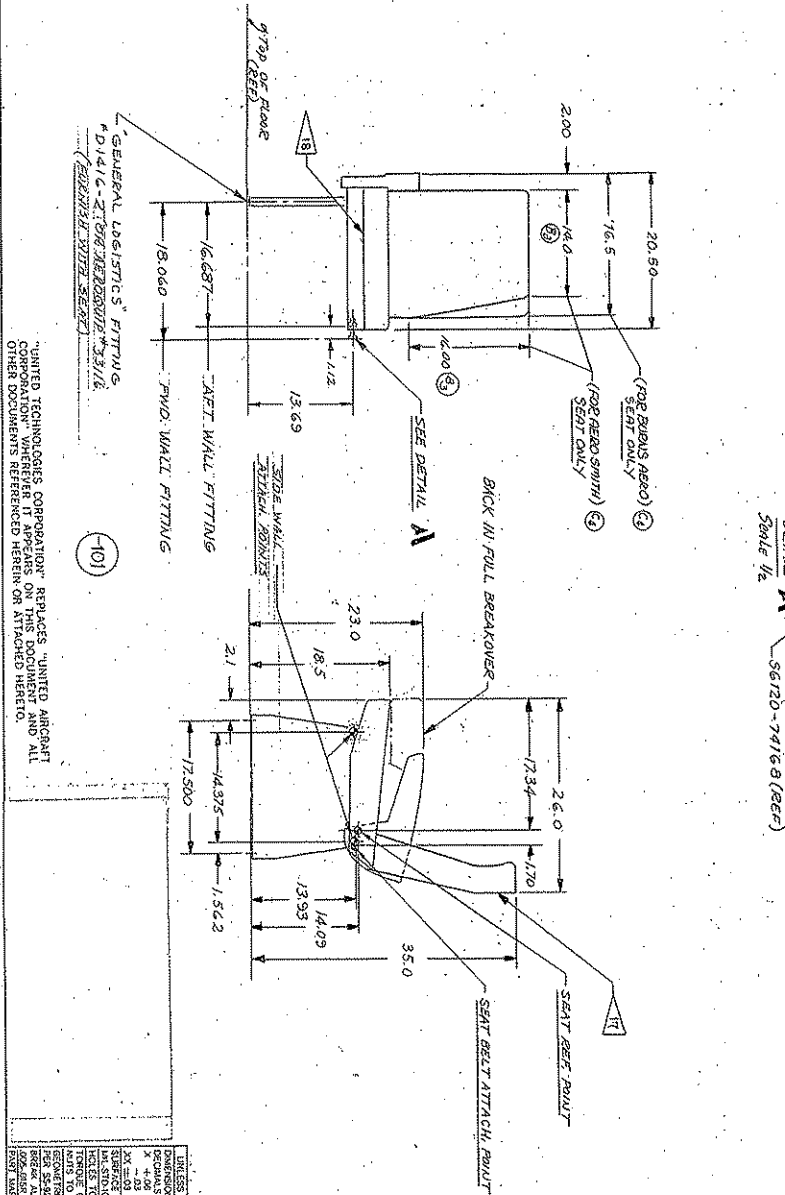
[REDACTED]

TYPE	DESCRIPTION	APPLICABLE TO
1	PROTECTIVE COATING	ENGINE, TS, 258
2	ALUMINUM ANODIZING	ENGINE, TS, 258
3	ALUMINUM POLYMER	ENGINE, TS, 258
4	ALUMINUM POLYMER	ENGINE, TS, 258
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98	ALUMINUM POLYMER	ENGINE, TS, 750
99	ALUMINUM POLYMER	ENGINE, TS, 750
100	ALUMINUM POLYMER	ENGINE, TS, 750

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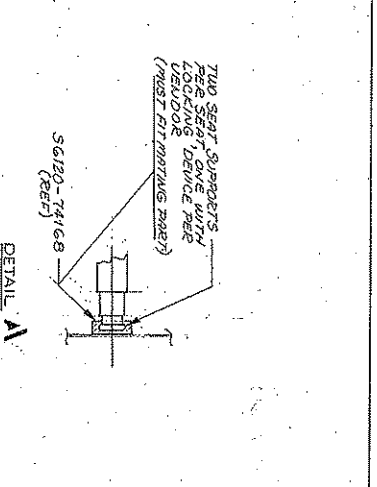
REV.	DATE	DESCRIPTION OF CHANGE
01	ENGR. # 4	SEAT BACKS TO BE DELETED FROM THE PARTS LIST. THE SEAT BACKS WILL BE COVERED WITH POLYURETHANE FOAM. (REF. PARTS LIST #11)
02	ENGR. # 4	REVISION: CLASSTY DATA REMOVED. (REF. PARTS LIST #11)
03	ENGR. # 4	REVISION: CLASSTY DATA REMOVED. (REF. PARTS LIST #11)
04	ENGR. # 4	REVISION: CLASSTY DATA REMOVED. (REF. PARTS LIST #11)



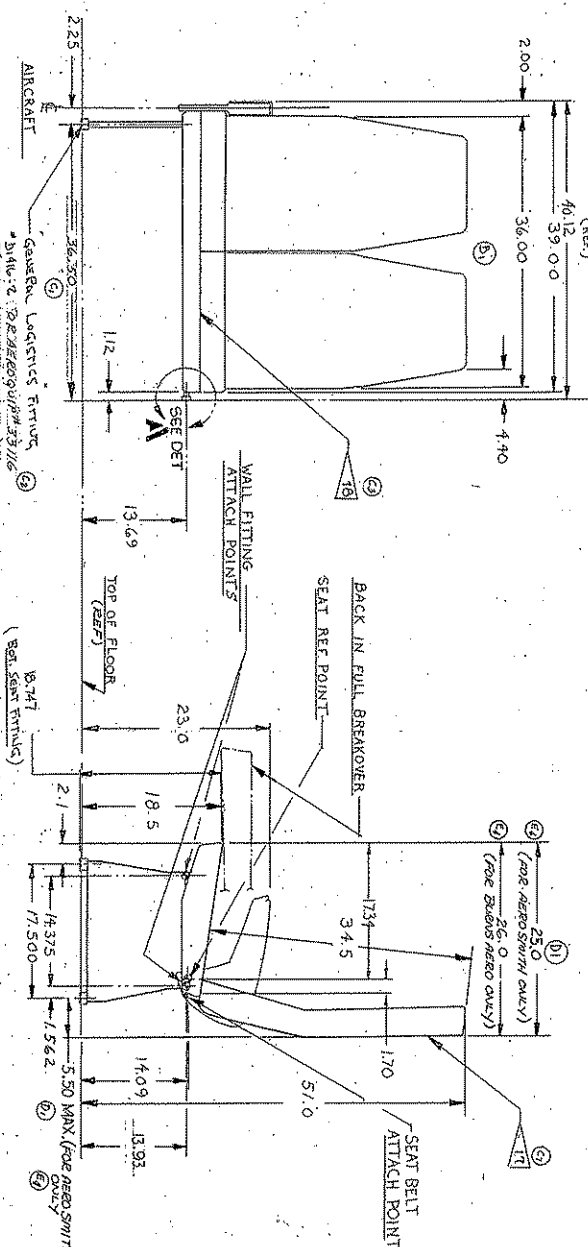
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1. ALL EXPOSED SEAT STRUCTURE & TRIM PANELS SHALL BE PAINTED PRISTINE WHITE (#4662 DUPONT LUCITE OR EQUIV.)
2. 1" WIDE V-CELL TYPE #40 HIGHEST (HORIZONTAL) SHALL BE APPLIED TO THE SEAT BACKS.
3. SEAT BACK SHALL BE COVERED WITH POLYURETHANE FOAM. NOMINAL 2" THICK. SEAT BACK DIRECT DIRECTED AGAINST THE STRAPS.
4. SEAT SHALL MEET 750-C390, TYPE II, CAN 7, PARA 3333, 3329, 3328, 3325.
5. SEAT LOADS ARE AS FOLLOWS: (APPLIED SEPARATELY)
 - UP: 4G
 - DOWN: 4G
 - SIDE: 2G
 - UP: 1.5G
6. UPHOLSTERY MAT'L SHALL BE FLAME-RESISTANT PER F.A.A. SPEC. FPR 25.853 B.
7. MAX. WEIGHT PER SEAT IS 163 LBS.
8. SEAT SHALL HAVE PROVISIONS FOR ATTACHING STANDARD AIRCRAFT TYPE LAP BELTS.
9. SEAT BACKS, ARMRESTS SHALL BE PADDED WITH POLYURETHANE FOAM. CUSHIONS SHALL BE COVERED WITH NYLON OR EQUIV.
10. ALL EXPOSED METAL, BY SIKORSKY AIRCRAFT PER CUSTOMER REQUIREMENT.
11. FINISH UPHOLSTERY BY EVANES FINISH.
12. SPECIFICATIONS, PUBLICATIONS AND DRAWINGS REFERENCED HEREIN SHALL BE THOSE IN EFFECT ON THE DATE OF REVISION FOR THIS AND SHALL FORM A PART OF THIS DRAWING TO THE EXTENT SPECIFIED HEREIN.
13. MATERIALS AND PROCESSES USED SHALL BE SUITABLE FOR THE PURPOSE AND SHALL CONFORM TO GOVERNMENT SPECIFICATIONS OR TO NON-GOVERNMENT SPECIFICATIONS LISTED IN BULLETIN JAN-78 UNLESS OTHERWISE SPECIFIED HEREIN. THE ORDER OF SELECTION OF DOCUMENTS SHALL BE THAT ESTABLISHED BY MIL-STD-149. OTHER SPECIFICATIONS MAY BE USED PROVIDED THEY HAVE BEEN APPROVED BY SIKORSKY AIRCRAFT.
14. DETAIL DESIGN SHALL COMPLY, UNLESS OTHERWISE SPECIFIED WITH REQUIREMENTS OF:
 - AIR FORCE HANDBOOK OF INSTRUCTIONS FOR AIRCRAFT DESIGNERS (H40)
 - BUREAU OF NAVAL WEAPONS SPECIFICATION SP-2A.
15. VENDOR PART NUMBER MUST BE ASSIGNED IN ACCORDANCE WITH MIL-STD-19092 AND REFERENTIALLY APPLIED PER MIL-STD-19091.

APPLICATION OF PROTECTIVE FINISHES	
TYPE	DO NOT APPLY
FIN #1	PROTECTIVE FIN, FINISHES TO BE
FIN #2	ALUMINUM ANODIZING, WITH MIL-SPEC
FIN #3	MIL-ET-179A, TYPE II
FIN #4	MIL-ET-179A, TYPE II
FIN #5	MIL-ET-179A, TYPE II
FIN #6	MIL-ET-179A, TYPE II
FIN #7	MIL-ET-179A, TYPE II
FIN #8	MIL-ET-179A, TYPE II
FIN #9	MIL-ET-179A, TYPE II
FIN #10	MIL-ET-179A, TYPE II
FIN #11	MIL-ET-179A, TYPE II
FIN #12	MIL-ET-179A, TYPE II
FIN #13	MIL-ET-179A, TYPE II
FIN #14	MIL-ET-179A, TYPE II
FIN #15	MIL-ET-179A, TYPE II
FIN #16	MIL-ET-179A, TYPE II
FIN #17	MIL-ET-179A, TYPE II
FIN #18	MIL-ET-179A, TYPE II
FIN #19	MIL-ET-179A, TYPE II
FIN #20	MIL-ET-179A, TYPE II



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10. UNEXPOSED SEAT STRUCTURE SHALL BE PROTECTED FROM DAMAGE BY THE USE OF PROTECTIVE FINISHES.
11. SEAT SHALL BE CAPABLE OF WITHSTANDING A LOAD OF 300 POUNDS NORMAL TO SEAT BACKS DIRECTED AGAINST THE SEAT.
12. MAXIMUM WEIGHT PER SEAT IS 30.0 LBS.
13. OPERATIONAL POSITIONS AND TRAINING REFERENCED HEREIN SHALL BE THOSE IN EFFECT ON THE DATE OF ANNOTATION FOR THIS DRAWING TO THE EXTENT SPECIFIED HEREIN.
14. MATERIALS AND PROCESSES USED SHALL BE SUITABLE FOR THE PURPOSES AND SHALL CONFORM TO OTHERWISE SPECIFIED HEREIN. THE ORDER OF SELECTION OF DOCUMENTS SHALL BE THAT ESTABLISHED BY MIL-STD-44 OTHER SPECIFICATIONS MAY BE USED PROVIDED THEY HAVE BEEN APPROVED BY SKOROSKY AIRCRAFT.
15. DETAIL DESIGN SHALL COMPLY, UNLESS OTHERWISE SPECIFIED, WITH REQUIREMENTS OF:
 - AIR FORCE HANDBOOK OF INSTRUCTIONS FOR AIRCRAFT DESIGNERS (HAI)
 - BUREAU OF NAVAL WEAPONS SPECIFICATION 502A.
16. SEAT SHALL MEET 750-C39, TYPE II, CHART 7, PARA 7.3.3.5 & FIG. 29, PARA 2.9.78.5.
17. SEAT LOADS ARE AS FOLLOWS: (CARRIED SEPARATELY)
 - DOWN: 4G
 - UP: 2G
 - DOWN: 4G
 - UP: 1.5G
18. UPHOLSTERY MATERIALS SHALL BE FLAME-RESISTANT PER F.A.A. SPEC. FAR 25.853 B.
19. SEAT SHALL HAVE PROVISIONS FOR ATTACHING STANDARD AIRCRAFT TYPE LAP BELTS.
20. SEAT, SEATBACK, ARMREST SHALL BE PADDED WITH POLYURETHANE FOAM. CUSHIONS SHALL BE COVERED WITH MOUSLIN OR EQUIV.
21. ALL EXPOSED METAL: ENAMEL FINISH.
22. FINAL UPHOLSTERY BY SKOROSKY AIRCRAFT PER CUSTOMER REQUIREMENT.
23. VENDOR PART NUMBER MUST BE ASSIGNED IN ACCORDANCE WITH MIL-D-70877 AND REMAINANTS APPLIED PER MIL-STD-130.
24. ITEMS SPECIFIED HEREON MAY BE PROCURED FROM:

CONTROL NUMBER	VENDOR CODE	VENDOR NAME	VENDOR PART NO.	APPROVABLE PART	REQ. DATE	REQ. QTY.	REQ. WEIGHT
SE-60-4394-102	2202	AMERICAN	6503-1				
SE-60-2294-101	14673	AMERICAN	1403				

SEE SEPARATE PARTS LIST

SPECIFICATION CONTROL DRAWING	
NO.	DESCRIPTION
1	SEAT

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SKOROSKY Aircraft
PASSENGER SEAT
AFT FACING HIGH BACK,
DOUBLE

CONTROL NO. 78986
REV. 1
DATE 1/8/77

UNITED AIRCRAFT CORPORATION
101
78986
REV. 1
DATE 1/8/77