

Civil Aviation Authority
Safety Regulation Group
Aviation House
South Area
Gatwick Airport
Gatwick
West Sussex RH6 0YR



Flying Service Engineering & Equipment Ltd
Springfield Road
Chesham
Bucks, HP5 1PP

Switchboard 01293 567171
Direct Dial 01293 573132
Fax 01293 573975
Telex 878753

Design & Production
Standards Division

For the attention of: Mr M R Storey
Chief Designer

Ref: 9/40:25-20-01/FSE
08118H RLCI

Date: 26/09/2001

Dear Mr Storey

With reference to your application dated 14/03/2001 we hereby advise you that in accordance with BCAR A4-8, CAA Accessory Approval has been granted.

Please find enclosed your Approval Certificate.

Yours sincerely

Miss A J Matthews
For Head of Systems and Equipment Department

Approval Under
BCAR A4-8



**United Kingdom
Civil Aviation Authority**

**AIR NAVIGATION ORDER
AIRCRAFT EQUIPMENT APPROVAL**

Flying Service Engineering & Equipment Ltd

CAA ACCESSORY APPROVAL
APPROVAL NUMBER : E15877

Pursuant to the Air Navigation Order for the time being in force and subject to the Conditions annexed hereto, the UK Civil Aviation Authority hereby approves :

Equipment Category : Passenger Seats - Forward Facing

Master Type Description : Economy Triple Seat - Forward Facing

Master Type/Model Number : F3313 Series

<u>Approval Date</u>	<u>Type</u>	<u>Part No</u>	<u>DDP:Issue</u>
07/09/2001	F3313-() 9G Static / 16G Dynamic Seat	F3313-001 F3313-002	804 : 1

This Approval shall remain in force unless suspended, revoked or varied.


for the Civil Aviation Authority.
Date : 26/09/2001





Approval Under
BCAR A4-8

**United Kingdom
Civil Aviation Authority**

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This Approval shall remain in force unless suspended, revoked or varied.

for the Civil Aviation Authority.

Date : 26/08/2001



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Design & Production
Standards Division

For the attention of: Mr M R Storey
Chief Designer

Ref: 9/40:25-20-01/FSE
06119H RLF1

Dear Mr Storey

Date: 15/11/2001

With reference to your letter dated 14/03/2001, FAA Approval has been granted as follows:-

FAA Letter Reference : CB/vk/11/15/01: 0331-01
Approval Date : 15/11/2001

Equipment Category : Passenger Seats - Forward Facing
Master Type Description : Economy Triple Seat - Forward Facing
Master Type/Model Number : F3313 Series

<u>Type</u>	<u>Part No</u>
	F3313-()

The FAA require that, having complied with FAR Part 21, Section 21.305(b) and TSO No C127a, the above equipment may be identified in accordance with FAR 21.617(c). Each item of equipment exported for installation on United States registered civil aircraft must be accompanied by your Certificate of Airworthiness for Export to facilitate acceptance under FAR 21.502.

With respect to exports by UK CAA Approved Organisations the formal release document is the 'Authorised Release Certificate/Airworthiness Approval Tag'(JAA Form One). This certification is acceptable to the FAA for export to the USA.

This Approval is valid only to production operations of the above address and the undersigned must be notified in advance of any proposed relocation.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A J Matthews'.

Miss A J Matthews
For Head of Systems and Equipment Department.

Approval Under
BCAR A4-8



**United Kingdom
Civil Aviation Authority**

**AIR NAVIGATION ORDER
AIRCRAFT EQUIPMENT APPROVAL**

Flying Service Engineering & Equipment Ltd

**CAA ACCESSORY APPROVAL
APPROVAL NUMBER : E15877**

Pursuant to the Air Navigation Order for the time being in force and subject to the Conditions annexed hereto, the UK Civil Aviation Authority hereby approves :

Equipment Category : Passenger Seats - Forward Facing

Master Type Description : Economy Triple Seat - Forward Facing

Master Type/Model Number : F3313 Series

<u>Approval Date</u>	<u>Type</u>	<u>Part No</u>	<u>DDP:Issue</u>
07/09/2001	F3313-() 9G Static / 16G Dynamic Seat	F3313-001 F3313-002	804 : 1

This Approval shall remain in force unless suspended, revoked or varied.

for the Civil Aviation Authority

Date : 26/09/2001





U.S. Department
of Transportation
Federal Aviation
Administration

AIRCRAFT CERTIFICATION STAFF
c/o American Embassy
27, Boulevard du Regent
B-1000 Brussels, Belgium

November 15, 2001

In reply refer to: CB/vk/11/15/01: 0331-01

Ms. Angela J. Matthews
Civil Aviation Authority
Aviation House
South Area
Gatwick Airport
Gatwick, West-Sussex RH6 0YR
United Kingdom

Dear Ms. Matthews:

This letter refers to Flying Service Engineering & Equipment Ltd. letter Ref.: MRS/DES/10115 dated April 25, 2001, in which they made application for Technical Standard Order (TSO) design approval. This letter also acknowledges receipt of Flying Service Engineering & Equipment Ltd. Statement of Conformance dated March 14, 2001 and of CAA UK letter Ref. 9/40:25-20-01/FSE 06119H RLFA, dated September 10, 2001 certifying that the aircraft seat listed below complies with the requirements of TSO C127a, as designated in FAR 21.305(b) for installation on Boeing B737 aircraft.

Based on the CAA UK certification and receipt of the required data, we hereby accept Flying Service Engineering & Equipment Ltd. TSO design approval to include the aircraft seat listed below for manufacture at Flying Service Engineering & Equipment Ltd. located at Springfield Road, Chesham, Buckinghamshire HP5 1PP, United Kingdom.

P/N Seat - Type A
P/N F3313-()

Description
Economy Triple Seat - Forward Facing

This letter of TSO design approval, together with the CAA UK Certificate of Airworthiness for Export, will authorize Flying Service Engineering & Equipment Ltd. to identify the aircraft seat with the TSO marking requirements described in FAR 21.607(d) and in TSO C127a and is issued in accordance with FAR 21.617, governing issuance of TSO design approval for import appliances. Each item must be accompanied by a Certificate of Airworthiness for Export issued by the CAA UK or a duly authorized designee/organization (FAR 21.502(a)).

This approval does not constitute installation approval, however, restrictions and other conditions pertinent to the installation have been identified as follows:

This test report was limited to the testing of a standard economy triple unit for installation in the constant section of a Boeing 737 series aircraft. The seat must be installed forward facing. These seats meet the requirements of 14 CFR 25.561 and the dynamic requirements of 14 CFR Part 25.562, except for head injury criteria (HIC) of paragraph (c)(5), and leg injury requirements of paragraph (c)(6). Consideration was made for a seat to seat pitch of 31" without a "cant angle" or "offset" and with the seat having restricted back break forward.

The seat with a maximum total seat weight of 110.0 lbs can be installed on seat track crown sections conforming to that of extrusion BAC 1520-2779 as used in 737-600/700/800 aircraft.

The seat listed above is approved to TSO C127a. This approval does not cover any electronic equipment such as a video system or its installation. The installer of the seat must substantiate these additional components and/or systems. The export airworthiness certification documentation must clearly state the seat approval does not cover these added items.

Any deviation from the established design approval should be accomplished in accordance with FAR 21.609. The request for approval to deviate, together with all pertinent data, should be submitted to the Federal Aviation Administration (FAA) through the CAA UK and should contain information to show that the particular deviation is compensated for by factors or design features providing an equivalent level of safety.

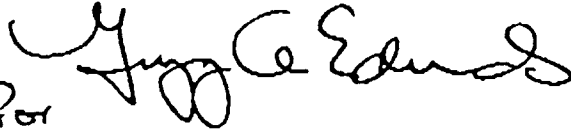
The following statement must be furnished with each manufactured unit: "The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those desiring to install this article either on or within a specific type or class of aircraft to determine that the aircraft installation conditions are within the TSO standards. The article may be installed only if the installation is performed in accordance with 14 CFR Part 43 or the applicable airworthiness requirements."

A letter of TSO design approval issued under FAR 21.617 is not transferable and is effective until surrendered, withdrawn or otherwise terminated by the FAA (FAR 21.621).

The FAA may, upon notice, withdraw the letter of TSO design approval of any manufacturer who identifies with a TSO marking any article not meeting the performance standards of the applicable TSO (FAR 21.619). The CAA UK airworthiness certification is essential to the determination that the item meets the performance standards of the applicable TSO.

If there are any questions, please feel free to have your staff contact Carrie K. Beach
(Tel.: 322.508.2715)

Sincerely,


For

John R. Colomy
Manager, Aircraft Certification Staff
FAA-Brussels

Reference: CB/vk/11/15/01: 0331-01