

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate

Number ST00507SE

This certificate, issued to **Quiet Wing Corporation**
1715 114th Ave. SE Suite 230
Bellevue, WA 98006

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 4b of the Civil Air Regulations.

Original Product—Type Certificate Number: A3WE

Make: Boeing

Model: 727-200

Description of the Type Design Change: Modification of certain Boeing Model 727-200 airplanes accomplished in accordance with DuganAir Technologies, Inc., Master Drawing List DT-00012, Revision P, dated November 2, 2001, or later FAA approved revision. The modified aircraft comply with FAR Part 36, Stage 3 noise limits when operated in accordance with the appropriate FAA approved Airplane Flight Manual Supplement.

Limitations and Conditions: This modification is approved for installation on the aircraft serial numbers listed in the appropriate FAA approved Airplane Flight Manual Supplement. This modification shall not be installed on any aircraft on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of these other previously approved modifications, including changes in type design, will introduce no adverse effects upon the airworthiness of that aircraft, nor change the certification status under FAR Part 36. Modified aircraft shall be operated in accordance with the appropriate FAA approved Airplane Flight Manual Supplement as listed on page 3 of this Certificate. A copy of this Certificate must be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

(See Page 3 for additional Limitations and Conditions)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: October 24, 1996

Date reissued: August 5, 2002

Date of issuance: April 15, 1998

Date amended: June 8, 1998; September 1, 1998;
December 3, 2001; August 5, 2002



By direction of the Administrator

K. A. R. R. R.

(Signature)

Acting Manager, Seattle Aircraft
Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number ST00507SE

Issued to: Quiet Wing Corporation

Date Amended & Reissued: 8/5/2002

Limitations and Conditions: (cont'd)

General Description of the Changes

This Supplemental Type Certificate (STC) approves a design for the modification of eligible Boeing Model 727-200 series airplanes by:

1. Installing an acoustically treated jet exhaust pipe in the center engine and a mixer on the center engine or mixers on all engines.
2. Incorporating in the flap system a DuganAir Technologies, Inc., modified drum cam
3. Incorporating changes in flap and aileron positions and rigging (Flap and Aileron Droop modification)
4. Incorporating winglets.

Airplane/Engine Combination

Boeing Model 727-200 airplanes equipped with Pratt & Whitney JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-15, JT8D-15A, JT8D-17, JT8D-17A, JT8D-17R, and JT8D-17AR engines operated at the thrust level specified by the pertinent DuganAir Technologies, Inc., Airplane Flight Manual Supplement.

Inlet Acoustic Treatment

Two types of inlet acoustic treatments were originally installed on the aircraft by the airplane manufacturer: a 13-inch long treatment and a 26-inch long treatment; they have different acoustic characteristics. The Airplane Flight Manual Supplement must identify the type of inlet acoustic treatment incorporated in the airplane. No intermix of 13-inch long and 26-inch long acoustic treatment is allowed.

Eligible Serial Numbers

Eligible Boeing Model 727-200 Serial Numbers are listed in the applicable FAA approved DuganAir Technologies, Inc., Airplane Flight Manual (AFM) Supplement, PK727DA200QW-XXX or DA200QW-XXX and FAA approved Weight and Balance Supplement PK727DA201QW-XXX or DA201QW-XXX. The XXX numbers identify the appropriate 727 series number, and the supplement will list the effective serial numbers for that series. Example: PK727DA200QW-232 is the Airplane Flight Manual Supplement for 727-232 series airplanes.

General Information

The following documents are essential to the Boeing airplanes modified in accordance with this STC and they must be listed in the Master Drawing List DT-00012.

JR Engineering Noise Certification Compliance Reports applicable to the acoustic configurations defined in the Airplane Flight Manual Supplement.

Applicable FAA approved Airplane Flight Manual Supplements.

Applicable FAA approved Weight & Balance Supplements.

Service Information

The maintenance requirements for the 727-200 airplanes modified per this STC are listed in the following DuganAir Technologies, Inc., documents:

DT-00006	Maintenance Program Supplement
DT-00008	Maintenance Manual Document
DTIH-727002	Structural Repair Supplement
DTIH-727909	Supplemental Structural Inspection Document

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