

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

*Number* **SA5796NM**

*This certificate, issued to:*

**BLR Aerospace, LLC  
3102 100th Street SW  
Everett, WA 98204**

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air Regulations.*

*Original Product—Type Certificate Number:* A20SO  
*Make:* Piper  
*Model:* PA-31-350 and T-1020

*Description of the Type Design Change:* Vortex generators manufactured in accordance with Document AA1113, Revision B, dated January 05, 1993, and installed in accordance with Document AA1114, Revision B, dated December 15, 1992, or later FAA-approved revisions.

*Limitations and Conditions:* Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft.

A copy of this certificate, continuation sheet, and the flight manual supplement (FMS) dated January 05, 1993, or later FAA-approved revision, must be maintained as part of the permanent records for the modified aircraft.

(See Continuation Sheet on Page 3)..

*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:* August 18, 1992  
*Date of issuance:* December 09, 1992

*Date reissued:* November 23, 2009  
*Date amended:* January 07, 1993



*By direction of the Administrator*

\_\_\_\_\_  
(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.*

# Supplemental Type Certificate

## (Continuation Sheet)

*Number* **SA5796NM**

**BLR Aerospace, LLC**

*Issued:* December 09, 1992  
*Reissued:* November 23, 2009  
*Amended:* January 07, 1993

*Limitations and Conditions continued:*

This continuation sheet, which is part of STC SA5796NM, prescribes the conditions and limitations under which the product for which the STC was issued meets the standards for airworthiness of the Federal Aviation Regulations.

The conditions and limitations of Type Certificate Data Sheet Number A20SO apply except where superseded by the following:

The system consists of eighty-six vortex generators on the wing and vertical tail of the airplane and four strakes (two on each nacelle).

There may be a maximum combined total of four vortex generators missing from the wing and/or vertical tail before replacements must be installed.

If any of the eighty-six vortex generators are missing, the airplane must be operated within the limitations of the basic airplane flight manual until replacements are installed.

**Airspeed Indicator Markings (IAS):** Normal operating range (green arc) ..... 73 to 185 knots  
 Flaps operating range (white arc) ..... 68 to 132 knots  
 Minimum single-engine control speed (red radial) ..... 72 knots

**Maximum Weights:** Ramp ..... 7295 pounds  
 Takeoff ..... 7250 pounds  
 Landing ..... 7000 pounds

**CG Range (Landing Gear Extended):** +127.0 inches to +135.0 inches at ..... 7250 pounds  
 +126.0 inches to +135.0 inches at ..... 7000 pounds  
 +122.0 inches to +135.0 inches at ..... 6200 pounds  
 +120.0 inches to +135.0 inches at ..... 5200 pounds or less  
 Straight line variation between points given

**Placards:** Change all references to  $V_{MCA}$  values on placards to 72 KIAS.

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