

Airglas Engineering Company, Inc.
P. O. Box 190107
Anchorage, Alaska 99519-0107
(907) 344-1450 **Fax (907) 349-4938**

SERVICE BULLETIN NO. LW3600-3

Originally Issued September 21, 1979

Amended October 10, 1997

TO: All owners of Cessna Model 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, and 180K, *and* Cessna Model 185, 185A, 185B, 185C, 185D, 185E, A185E, and A185F airplanes equipped with Airglas Model LW3600-180 single position or Model LW3600-180A two position ski installations in accordance with Supplemental Type Certificate (STC) No. SA213AL.

This Service Bulletin is to inform you of ski rigging changes and airplane airspeed restrictions for the above Airglas ski installations. Airglas Engineering Company, Inc., considers compliance with this Service Bulletin to be MANDATORY. The engineering aspects of this Service Bulletin have been approved by the Federal Aviation Administration.

Revision "F" of Airglas Drawing No. LW3600-180 dated September 21, 1979 (or later FAA approved revision), Revision "E" of Airglas Drawing No. LW3600-180A dated September 21, 1979 (or later FAA approved revision), and the Original Issue of Airglas Drawing No. LW3600-180A-11 dated September 21, 1979 (or later FAA approved revision) have been issued, and STC No. SA213AL has been amended effective October 10, 1997, to eliminate the possibility of the skis tucking nose-down beyond a safe attitude. The principal cause of such occurrences has been identified as shock cord and shock rings (bungees) made of synthetic rubber. Synthetic rubber is not considered suitable for shock cord and shock rings to be used at low temperatures for rigging airplane skis even though it meets the requirements of MIL-C-5651D NOT 1 for low temperature properties. Low-temperature shock cord and shock rings made of natural rubber MUST be used on Airglas ski installations. Low-temperature shock cord can be identified by the dark gray color of the natural rubber (synthetic rubber shock cord is light gray to white in color). The 8020 low-temperature shock rings specified in the revised Airglas design data are identified by an orange spiral band running in the direction opposite to the direction of the year and quarter year identifying threads on the outer covering braid. The care and storage of shock cords and shock rings is very important to their service life. Do not expose them to excessive heat or petroleum products. Store them in a cool, dark, dry place when they are not in use.

In reviewing the revised drawings, you will notice that the attachment of the upper end of the bungee assembly has been moved from the landing gear leg bracket to a bracket attached to the upper engine mount support channel, to allow the bungee to exert a more positive upward vertical pull. The attachment of the lower end of the rear check cable

SERVICE BULLETIN NO. LW3600-3

Originally Issued September 21, 1979

Amended October 10, 1997

(continued)

Install the appropriate placard adjacent to the airspeed indicator in full view of the pilot. If the airplane is approved for night flight, the placard must be suitably lighted.

The restriction of operating airspeed limits imposed when the skis are installed does not change the operating airspeed limits of Cessna Model 180, 180A, 180B, 180C, 180D, 180E, and 180F airplanes, but it reduces the never exceed speed of Cessna Model 180G, 180H, 180J, and 180K airplanes and it reduces *both* the maximum structural cruising speed *and* the never exceed speed of Cessna Model 185, 185A, 185B, 185C, 185D, 185E, A185E, and A185F airplanes. The markings on the airspeed indicators of the affected airplanes must be changed to reflect these reductions in operating airspeed limits.

When Airglas Model LW3600-180 single position or Model LW3600-180A two position skis are installed on a Cessna Model 180G, 180H, 180J, or 180K airplane in accordance with STC No. SA213AL, re-mark the airplane's airspeed indicator so that the top of the yellow arc is at 160 knots and the red radial line is located at 160 knots. Cover the portion of the original yellow arc that extends beyond 160 knots and the original red radial line with black paint or another suitable marking medium.

When Airglas Model LW3600-180 single position or Model LW3600-180A two position skis are installed on a Cessna Model 185, 185A, 185B, 185C, 185D, 185E, A185E, or A185F airplane in accordance with STC No. SA213AL, re-mark the airplane's airspeed indicator so that the top of the green arc is at 139 knots, the yellow arc extends from 139 knots to 160 knots, and the red radial line is located at 160 knots. Cover the portion of the original yellow arc that extends beyond 160 knots and the original red radial line with black paint or another suitable marking medium.

The required re-marking may be accomplished by placing markings on the cover glass of the airspeed indicator. If you choose this method, you must add an index mark or other means to ensure that the glass cover remains properly aligned with the face of the dial if the design of the airspeed indicator does not already incorporate means of verifying proper alignment of the cover. Each arc and line must be wide enough and be located so as to be clearly visible to the pilot, and must allow for parallax so that it will indicate correctly when viewed by the pilot.

Airglas Engineering Company, Inc.
P. O. Box 190107
Anchorage, Alaska 99519-0107
(907) 344-1450 Fax (907) 349-4938

SERVICE BULLETIN NO. LW3600-3

Originally Issued September 21, 1979

Amended October 10, 1997

(continued)

assembly has been moved from the aft inboard corner of the ski to the forward center bolt that attaches the tail wheel spring to the ski. The designs of the bungee assemblies, safety cables and check cables have been improved for added safety and to facilitate ski rigging geometry changes. These items must now conform to Airglas Drawings No.

LW3600-180A-1 and -2, Revision "B" dated September 21, 1979 (or later FAA approved revision) and No. LW3600-180A-3, Revision "A" dated April 30, 1979 (or later FAA approved revision).

The operating airspeed limits of Cessna Model 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, and 180K, and Cessna Model 185, 185A, 185B, 185C, 185D, 185E, A185E, and A185F airplanes have been restricted as follows when Airglas Model LW3600-180 single position or Model LW3600-180A two position skis are installed in accordance with STC No. SA213AL:

Maximum Structural Cruising Speed V_{no} = 139 knots indicated airspeed (KIAS)

Never Exceed Speed V_{ne} = 160 KIAS

Placards to inform the pilot of the V_{ne} restriction are shown on the Original Issue of Airglas Drawing No. LW3600-180A-11 dated September 21, 1979 (or later FAA approved revision) and are specified in the Airglas FAA approved Supplemental Airplane Flight Manual and Airplane Flight Manual Supplement revised October 10, 1997 (or later FAA approved revision). The Airglas Part No. LW3600-180A-11-1 placard is to be installed with LW3600-180 skis. It reads

DO NOT EXCEED 160 KT IAS
WITH AIRGLAS LW3600-180
SKIS INSTALLED

The Airglas Part No. LW3600-180A-11-2 placard is to be installed with LW3600-180A skis. It reads

DO NOT EXCEED 160 KT IAS
WITH AIRGLAS LW3600-180A
SKIS INSTALLED

Airglas Engineering Company, Inc.
P. O. Box 190107
Anchorage, Alaska 99519-0107
(907) 344-1450 Fax (907) 349-4938

SERVICE BULLETIN NO. LW3600-3

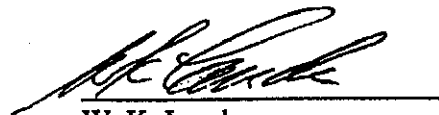
Originally Issued September 21, 1979

Amended October 10, 1997

(continued)

The changes described in this Service Bulletin are **MANDATORY**. The cable lengths indicated on the drawings **MUST BE STRICTLY ADHERED TO**. The placarded restriction of the never exceed speed, "**DO NOT EXCEED 160 KT IAS**", must also be strictly adhered to when flying an airplane with the skis installed.

Drawings and kits to accomplish the changes described in this Service Bulletin are available from Airglas or your local distributor. A copy of the Airglas FAA approved Supplemental Airplane Flight Manual and Airplane Flight Manual Supplement revised October 10, 1997 (or later FAA approved revision) is enclosed with this Service Bulletin. This Supplemental Airplane Flight Manual and Airplane Flight Manual Supplement supersedes the Airglas FAA approved Supplement to FAA Approved Airplane Flight Manual dated October 28, 1966, and it must be carried in the airplane at all times when Airglas Model LW3600-180 single position or Model LW3600-180A two position skis are installed in accordance with STC No. SA213AL. It must be attached to the FAA approved Airplane Flight Manual if the airplane is equipped with such a manual.



W. K. Landes
President