

**Airglas, Inc. ®**  
3500 O'Malley Rd.  
Anchorage, AK 99507

**Flight Manual Supplement**  
Cessna 170, 170A, 170B

DOCUMENT AI-12-170-FM

FAA APPROVED  
AIRPLANE FLIGHT MANUAL SUPPLEMENT  
FOR CESSNA MODELS:

170, 170A, 170B  
Equipped with

**AIRGLAS GLH3000-SG HYDRAULIC WHEEL SKI**

Registration Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

This supplement must be attached to the aircraft FAA Approved Airplane Flight Manual and must be carried in the airplane when the **Airglas, Inc. ® GLH3000-SG** hydraulic wheel ski is installed in accordance with STC SA02360AK. The information contained in this document supplements or supersedes the basic manual and applicable appendices only in those areas listed. For limitations, procedures, and performance information not contained in this supplement, consult the basic FAA Approved Airplane Flight Manual.

FAA Approved By:  Date: JUL - 1 2013  
Manager, Anchorage Aircraft Certification Office  
Federal Aviation Administration  
Anchorage, Alaska



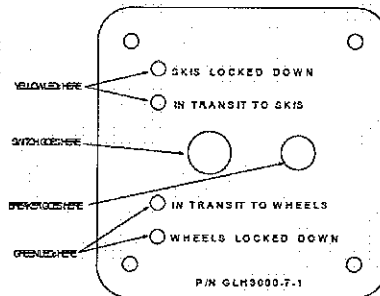


**SECTION I. Limitations**

- A.) Airspeeds:  $V_{ne}$  for all models is 138 MPH TIAS.  
Caution Range: 122 to 138 MPH.
- B.) Powerplant limits: NO CHANGE
- C.) Flight Load Factors: NO CHANGE
- E.) Flight Limitations: NORMAL CATEGORY ONLY
- F.) Usable Fuel: NO CHANGE
- G.) Markings and Placards:

DO NOT EXCEED 138 MPH IAS WITH  
AIRGLAS GLH3000 SKIS INSTALLED

Place Airspeed Restriction Placard on instrument panel immediately adjacent to Airspeed Indicator and **in full view of pilot.** (All Models)



Located at the ski selector switch. (All Models)

ONLY NORMAL CATEGORY OPERATIONS  
APPROVED, SPINS ARE PROHIBITED.

Place Placard on instrument **in full view of pilot.** (All Models)

CAUTION- IT IS POSSIBLE TO EXCEED THE FORWARD CG LIMITAION WITH AIRGLAS SKIS INSTALLED AND MINIMUM FUEL. OPERATIONS OUTSIDE THE CG LIMITATIONS ARE PROHIBITED.

Place Placard on instrument **in full view of pilot.** (All Models)

CAUTION- IT IS POSSIBLE TO EXCEED THE MAXIMUM WEIGHT LIMITAION WITH AIRGLAS SKIS INSTALLED AND ALL SEATS OCCUPIED. OPERATIONS OUTSIDE THE MAXIMUM WEIGHT LIMITATIONS ARE PROHIBITED.

Place Placard on instrument **in full view of pilot.** (All Models)

CAUTION- IT IS POSSIBLE TO EXCEED THE AFT CG LIMITAION WITH AIRGLAS SKIS INSTALLED. OPERATIONS OUTSIDE THE CG LIMITATIONS ARE PROHIBITED.

Place Placard on instrument **in full view of pilot.** (170 Model)

JUL - 1 2013

FAA Approved \_\_\_\_\_ Revision: Original

## **SECTION II. Normal Procedures**

- A.) Pre-flight:
  - 1. CHECK – Bungees, cables, clevis pins, cotter pins, nuts, bolts and attach fittings for security.
  - 2. CHECK – Cylinders for leaks at the seals and fittings.
  - 3. CHECK – Hydraulic pump fluid level and inspect for leaks, and wiring connections.
  - 4. CHECK – Ski Kit for cracks, excessive wear, fractures, abrasions, and delamination.
  - 5. CHECK – Door Guides for wear and security. Lube with silicone spray or wax.
  - 6. CHECK – Tires for proper pressure- 20 psi minimum.
  - 7. CHECK – 25 hour servicing has been performed within last 25 hours of operation.
- B.) Starting the engine: Hand propping of engine is not recommended.
- C.) Before Takeoff: Ensure the skis are locked in the desired configuration. Prepare for longer takeoff distances.
- D.) Before landing: Ensure the skis are locked in the desired configuration. Ensure planned landing area is free of logs, rocks, snowdrifts or other obstacles. Prepare for longer landing distances.

## **SECTION III. Emergency Procedures**

If either of the skis does not deploy to the full up or down configuration, avoid landing on non-frozen surfaces. High friction contact on the ski bottoms may cause high drag and reduced control.

## **SECTION IV. Performance Information**

1. **TAKEOFF:** Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane takeoff distance is approximately 30 percent greater than that shown for the land plane.



Warning

In estimating distances for other conditions, caution should be exercised in making provision for other temperatures or other snow conditions that may **significantly** affect or increase these distances.

2. **CLIMB:** Rate of climb performance is decreased approximately 26% below climb performance with eight and one half inch (8.50 x 6) tires.
3. **CRUISE:** Cruise speed may be decreased as much as 3%. Maximum range will also be reduced.
4. **LANDING:** Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane landing distance is approximately 20% greater than that shown for the land plane on a hard surface.



Warning

In estimating distances for other conditions, caution should be exercised in making provision for other temperatures or other snow conditions that may **significantly** affect or increase these distances.

## **SECTION V. Loading Information**

The equipment added to this airplane by this modification consists of the GLH3000-SG hydraulic wheel ski kit. The weight of the wheel ski kit is 124 lbs. with a C.G. of 14.75 inches aft of the aircraft datum. The electric pump is 7.5 lbs. located 146 inches aft of the aircraft datum. See the airplane's current weight and balance report for determining exact weight and balance calculations.

## **SECTION VI. Systems Descriptions**

This airplane is equipped with an **Airglas, Inc. ®, GLH3000-SG** hydraulic wheel ski, with associated attachment rigging.

## **SECTION VII. Servicing and Maintenance**

All servicing procedures for this installation are standard. The GLH3000-SG hydraulic wheel ski may be maintained and inspected in accordance with Part 43 of the Federal Aviation Regulations (14 CFR 43). Information on installing, removing, maintaining, and insuring continued airworthiness of the GLH3000-SG hydraulic wheel ski is detailed in the Instructions for Continued Airworthiness Including Installation, Maintenance and Service Instructions Manual No. GLH3000-105, Rev D dated February 22, 2013 or later FAA approved revision.

-----End-----