United States Of America

Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SH678AL

This Certificate issued to Airglas, Inc
P.O. Box 190107
Anchorage, AK 99519-0107

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 6 *of the* Civil Air *Regulations,* including Amendents 6-1 through 6-4 and Special Conditions.

Original Product Type Certificate Number: H3WE

Make: MD Helicopter, Inc. (McDonnell Douglas Helicopter Company) (Hughes)

Model: 369D

Description of Type Design Change: Installation of Airglas Model L2700-369D Skis per Airglas Engineering Company, Inc. Drawing L2700-369D dated October 26, 1979, or later FAA approved revision. The L2700-369D Skis are fabricated per Airglas Engineering Company, Inc. Drawings L2700-369D-1 dated October 26, 1979; L2700-369-2-3-4-5 Revision B, dated November 9, 1979, and 30185 dated January 20, 1972, or later FAA approved revisions.

Limitations and Conditions: This approval applies only to those Hughes Model 369D Helicopters which are fitted with the Hughes standard landing gear (Part No. 369D 26100-101 and 102). The FAA approved Airglas Engineering Company, Inc., Rotorcraft Flight Manual Supplement for the Hughes 369D Helicopter, dated December 28, 1979, is a part of this certificate and must be included in the Basic Rotorcraft Flight Manual when the helicopter is operated with the Airglas Model L2700-369D Skis installed.

The approval of this change in type design applies basically to Hughes Model 369D Helicopters, only. This approval should not be extended to other helicopters of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse affect on the airworthiness of that helicopter. This determination should include consideration of significant changes in weight distribution such as an increase in the fixed disposable weight in the fuselage.

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.

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 24, 1979

Date reissued: April 26, 2000

Date of issuance: December 28, 1979

Date amended: March 02, 1981; and April 26, 2000

By direction of the Administrator

Gregory J. Holt
(Signature)

Gregory J. Holt
Manager
Anchorage 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.

Airglas Engineering Co.,

P. O. BOX 6107 • ANCHORAGE, ALASKA • PHONE 344-1450

F A A APPROVED

ROTOCRAFT FLIGHT MANUAL SUPPLEMENT
FOR
HUGHES 500D Model 369D HELICOPTER
R/N_____ S/N_____

The information in this document is FAA approved material which, together with the basic Hughes model 369D Rotocraft Flight Manual dated Dec 8, 1976 and later revisions is applicable and must be carried in the basic manual when the helicopter is modified by the installation of Airglas Model L2700-369D Skis in accordance with STC STC SH678AL. The information in this document supercedes the basic manual in the items contained herein. For limitations, procedures and performance not contained in this supplement, consult the Basic Rotocraft Flight Manual.

Note: Installation of Airglas L2700-369D Skis per STC SH678AL is approved only for Hughes Model 369D helicopter whis fitted with Hughes P/N 369D26100-101 & 102 Standard Landing Gear. The above skis are also approved when Hughes Service Information Notice DN-44.1 dated 22 June 1979 and DN-45.2 dated 22 Oct. 1979 have been complied with.

Approved By Dayton O. Curtis
Chief, Engineering And Manufacturing
Field Office
Federal Aviation Administration
Alaska Region

Date of Approval December 28, 1979
Date Revised March 2, 1981

Airglas Engineering Co.,

P. O. BOX 6107 • ANCHORAGE, ALASKA • PHONE 344-1450

SUPPLEMENT TO THE DO-APPROVED

ROTORCRAFT FLIGHT MANUAL

FOR

HUGHES 500 MODEL 369D HELICOPTER

LIST OF MODELS AFFECTED

369D Helicopter Serial No. 0003 and Subs.

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DATE December 28, 1979

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SECTION I

Operating Limitations

No Change

SECTION II

No Change

SECTION III

Performance

No Change

SECTION IV

Weight and Loading

Ski Kit Weight	----------	50 Lbs.
Ski Kit C.G.	----------	STA 98.00

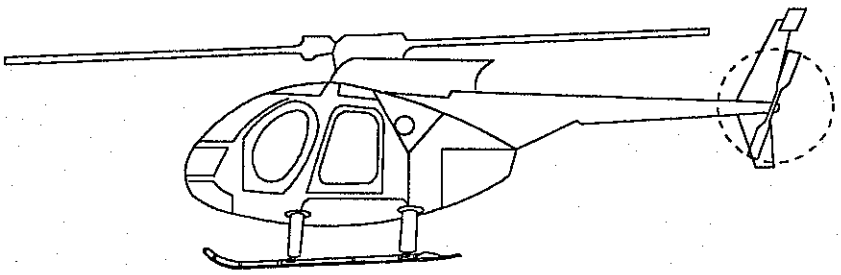
SECTION V

Maintenance

No Change

FAA APPROVED

DATE: December 28, 1979



MAINTENANCE, SERVICE INSTRUCTIONS & ILLUSTRATED PARTS LIST

AIRGLAS ®

Model L2700-369D Ski Kit
for
McDonnell - Douglas 369D Helicopter

CODE INDENT. NO. 17564

AIRGLAS MANUAL NO. L2700-369D-105

AIRGLAS ENGINEERING CO., INC.
ANCHORAGE, ALASKA 99519

AIRGLAS MODEL L2700-369D SKI KIT

SKI SPECIFICATION

MAIN SKIS -AIRGLAS P/N L2700-369D

Dimensions	116"x 14.0"
Approx. Area per Ski	923 in.^{2}
Approx. Weight per Ski	25.0 lbs.
C.G. of Ski	3.5" Fwd. of Wheelwell

CONSTRUCTION - The main body of the ski is composite (with fiberglas being the primary material) using a Isophthalic Polyester resin. The top finish is a red Isophthalic Polyester Gelcoat, while the bottom finish is an epoxy coating. Abrasion resistant steel runners are pop riveted to the bottom of the ski for additional wear resistance.

AIRGLAS MODEL L2700-369D SKI KIT

BOTTOM SURFACE MAINTENANCE :

2. When the bottom surface becomes excessively scratched or worn, it may be sanded down with a small belt or disc sander (use 36 grit) and re-coated with a brush application of the epoxy coating 4B2. This should be allowed to cure at room temperature (72° Fahrenheit, 22.2° Centigrade). After curing the epoxy is then sanded smooth with 80 grit sand paper using a DA air sander (or equivalent). A kit of the epoxy for this process is obtainable from manufacturer. If major repairs are necessary, manufacturer can advise on proper procedure.

TYPES OF POSSIBLE DAMAGE :

A.) Negligible damage :

1. Small nicks, scratches or abraded areas in top or bottom of ski.

B.) Repairable damage :

1.) **Cracks or fractures** - 2" or less in length Airglas does not need to be consulted. Longer than 2" Airglas should be consulted.
2.) **Delamination** - a delamination of 0.5" deep (into the ski) and 2 - 4 inches in length.
3.) **Small holes** max. 2" dia.
4.) **Abrasion**, bottom wear due to contact with rocks etc., bottom coatings worn through to glass fibers.
5.) **Replacement** of loose or missing rivets.
6.) **Repacement** of worn runners.
7.) **Replacement** of strap mounting screws.

C.) Non - repairable damage

1.) **Strap mounting screws** pulled through the fiberglas ski.
2.) **Delamination of the ski** within 3 inches of a strap mounting screw.
3.) **Cracks or fractures** longer than 2".

AIRGLAS L2700-369D SKI KIT PARTS LIST

Parts listed below are for an **entire ski kit** (two (2) skis)

Fig. No.# 1 & 2 Index Number	Part Number	Code Ident. Number	Nomenclature	Number Required
	L2700-369D	17564	SKI KIT	1
1	L2700-369D-1 OR L2700-369D-2	17564	LEFT OR RIGHT SKI	2
2	L2700-369D-3A	17564	STRAP	2
3	L2700-369D-2	17564	STRAP	2
4	L2700-369D-3	17564	STRAP	8
5	L2700-369D-4	17564	RUNNER	4
6	L2700-369D-5	17564	RUNNER	4
7	L2700-369D-4A	17564	RUNNER	2
8	30185	17564	WASHER	28
9	NAS514-524-24		SCREW	28
10	AN316-5		SHEAR NUT	28
11	AN960-516L		WASHER	56
12	AN365-524		NUT	28
13	SSB6-8		RIVET	100

SKID-TYPE SKI
SPECIFICATIONS

AIRGLAS P/N: **L8500A**

Dimensions----------163.5 x 22″
Approximate Area per ski----------2142 in²
Approximate Weight per ski----------68 lbs.
C.G. of ski----------4″ Forward of Fwd. edge of Wheel Well

AIRGLAS P/N: **L8500R**

Dimensions----------163.5″ x 22″
Approximate Area per ski----------2142 in²
Approximate Weight per ski----------RH=66 lbs., LH=68 lbs.
C.G. of skis----------RH=2″ LH=4″ Forward of Fwd. edge of Wheel Well

AIRGLAS P/N: **L8500RR**

Dimensions----------163.5″ x 22″
Approximate Area per ski----------2142 in²
Approximate Weight per ski----------66 lbs.
C.G. of ski----------2.0″ Forward of Fwd. edge of Wheel Well

AIRGLAS P/N: **L8500AUT**

Dimensions----------160″ x 22″
Approximate Area per ski----------2065 in²
Approximate Weight per ski----------65 lbs.
C.G. of ski----------10.7″ Aft of Fwd. edge of Wheel Well

AIRGLAS P/N: **L8500AUTR**

Dimensions----------160″ x 22″
Approximate Area per ski----------2000 in²
Approximate Weight per ski----------64 lbs.
C.G. of ski---------- N/A

AIRGLAS P/N: **L2700-206A**

Dimensions----------116″ x 14″
Approximate Area per ski----------923 in²
Approximate Weight per ski----------25 lbs.
C.G. of ski----------4.5″ Forward of Fwd. edge of Wheel Well

AIRGLAS P/N: **L2700-206LHS**

Dimensions----------157.5″ x 15.5″
Approximate Area per ski----------1460 in²
Approximate Weight per ski----------36 lbs.
C.G. of ski----------0.5″ Aft of Fwd. edge of Wheel Well

SKID-TYPE SKI
SPECIFICATIONS

AIRGLAS P/N **L2700-206LHSR**
Dimensions----------157.5" x 15.5"
Approximate Area per ski----------1460 in^2
Approximate Weight per ski----------36 lbs.
C.G. of ski----------1" Aft of Fwd. edge of Wheel Well

AIRGLAS P/N **L2700-AS350**
Dimensions----------188.5" x 13.5"
Approximate Area per ski----------1525 in^2
Approximate Weight per ski----------30 lbs.
C.G. of ski----------N/A of Fwd. edge of Wheel Well

AIRGLAS P/N **L2700-369D**
Dimensions----------116" x 14"
Approximate Area per ski----------923 in^2
Approximate Weight per ski----------25 lbs.
C.G. of ski----------4.5" Forward of Fwd. edge of Wheel Well