

APICAL INDUSTRIES, INC.

REPORT NUMBER AI332-5

INFLATION TEST PLAN AND REPORT

APICAL INFLATABLE EMERGENCY

HELICOPTER FLOAT KIT
EUROCOPTER AS332C, L and L1

FAA PROJECT NUMBER ST8539LA-R

PREPARED BY A. Beutler 01Dec10
Date

CHECKED BY _____ 01Dec10
Date

REPORT APPROVED BY _____ 01Dec10
Date

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Log of Revisions

Date	Rev.	Page No.	Description	Approval
01Nov05	N/C	All	Initial Release	D.V. Hitzfield
01Dec10	A	3.1, & 4.1	Add Inflation Report Results	D.V. Hitzfield

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References

1. Apical Dwg 20729 & 20730
2. Apical Document II332-1 Installation Instructions
3. Apical Document ICA332-1 Instructions for Continued Airworthiness
4. Apical Document AI332-1 Structural Substantiation Report
5. FAR Part 29

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1.0 Scope

The purpose of supplying this Inflation Test Plan and Report is to obtain an FAA Supplement Type Certificate for Apical Industries, Inc.'s (Apical) replacement inflatable emergency helicopter floats. The Apical replacement inflatable emergency floats, Nose Float P/N 20729 and Main Floats P/N 20730, are direct replacements for Aerazur's Fwd Float P/N 158820 and Aft Floats P/N 158565 and 158566 for the Eurocopter AS332. The Apical replacement emergency floats are dimensionally and functionally identical to the Aerazur floats. The Apical Floats are installed exactly as the Aerazur floats per Aerazur Maintenance Manual Document No. 25.69.18.

The AS332C, L and L1Models have a current maximum gross weight of 18960 pounds.



Main Float (Right Hand Looking Outboard)



Nose Float (Only Right Hand Half Shown)

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2.0 Introduction

Apical Industries, Incorporated (Apical) currently holds STC's for helicopter inflatable emergency float installations. These inflatable emergency floats are for installation on the Eurocopter AS332. These floats are similar in construction and materials to the other floats for which Apical has obtained certification.

The Eurocopter AS332 Emergency Float System consists of three float bags; one nose float and two symmetrically mounted main floats.

The helicopter airframe and float containers have been structurally substantiated as part of the helicopter type certification. Therefore, it can be implied that the only critical component that requires proof of compliance is the float bag to airframe/container interface structure; and demonstrate an inflation.

The float bags and installation shall be conformed prior to this test.

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3.0 Installation

Install one nose float, P/N 20729 and one main float, P/N 20730 on Eurocopter AS-332, serial number 2058.

IAW Request for Conformity- Installation.

After completion of conformity, proceed with following test.

4.0 Test:

Date: Time:

Nose Bag 20729 Serial Number 0001

Main Bag 20730 Serial Number 0001

Vacuum all internal air from bags.

Disconnect main hose from reservoir. With shop air, inflate bags through inflation plumbing network.

Continue to supply shop air until float bag chambers contain 2.0 PSI. Demonstrate Apical's replacement float bags (20729 and 20730), preform and reach 2.0 PSI using inflation plumbing network.

Nose Float 20729 Accept X Reject _____

Main Float 20730 Accept X Reject _____

Witness: _____
 Mr. Joseph Condo, DER

Date: _____

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5.0 Conclusions:

The floats inflated in accordance with this test plan on 12/9/01. The test was witnessed by DER Joe L. Condo on behalf of the FAA.