INSTRUCTIONS for CONTINUED AIRWORTHINESS

Including

INSTALLATION, MAINTENANCE & SERVICE INSTRUCTIONS

Airglas ®

Model LAM-R44 Portable Device Mount

Document No: LAM-R44-105
Date: August 20, 2014
Revision: D

RECORD OF REVISIONS

REVISION NUMBER	DATE	AFFECTED PAGES	BY	EXPLANATION OF REVISION
Original	June 28, 2013	All	CDB	Original
A	01/20/14	4-8	CDB	Revised description, revised MS27039 fastener length, revised drawings and diagrams. Minor typographical corrections.
B	02/25/14	4-6, 8	CDB	Revised MS27039, and AN3 fastener length, revised drawing revision status.
C	4/11/14	7	CDB	Added arm data to weight and balance chart.
D	08/20/2014	4	CDB	Added night and glare information to warning.

Distribution of Changes

A new copy of the revised manual or affected pages will be maintained on the Airglas, Inc. website.

Airworthiness Limitations

"The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved."

Limitations:

- ***Currently there are no components of the LAM-R44 portable device mount that have a time limited mandatory service interval.***

Table of Contents

1.0 Introduction and & Description

Introduction:
The ***Airglas Inc.*** ®, **LAM-R44** portable device mount allows the installation of portable devices within the cockpit of the R44 and R44II. This mount is comprised of a carbon fiber arm secured to the console at the inboard end with two machine screws and the outboard end is secured to the windshield frame with one AN3-4A bolt. Portable devices may be secured to the mount using the fastener holes provided.

Description:
This mount is comprised of a carbon fiber arm secured to the console at the inboard end with two machine screws and the outboard end is secured to the windshield frame with one AN3-4A bolt. Portable devices may be secured to the mount by drilling appropriate holes IAW Airglas, Inc. drawing number LAM-R44 Sheet 2 of 2. The operator may attach portable devises to the mount within the following limits:

Maximum Weight (All Items)	Maximum Moment (from attachment on arm to center of mass)
7 lbs.	**28 in. lbs.**

It is critical that the limitations are not exceeded. It is the pilots responsibility to ensure that portable devices are secure, do not obstruct the pilots view of instruments, displays, and outside the cockpit. All portable devices must remain clear of the controls, ensure any cables are well secured.

Warning
All electrical installations must be evaluated to ensure the accuracy and reliability of the electronic tachometers and low RPM warning system.

Determining the suitability of any portable device installation, including night visibility and canopy glare characteristics, is the responsibility of the installer and operator.
All installations must be clear of all controls and must not obstruct pilot(s) vision.

Since the system is very simple and has no moving parts; it is very easy to maintain and inspect. This manual will detail the installation, inspection procedures and intervals along with maintenance and repair instructions.

2.0 Installation-

a) Remove the two aft MS27039C0806 screws from the A479-1plate located in the lower instrument panel console (discard the screws).
b) Place the LAM-R44 portable device mount in the cabin and secure it with two MS27039C0815 screws using the two fastener locations vacated in step a.
c) With the LAM-R44 mount resting on the C238-18 frame, mark the center of the hole with a pencil using the LAM-R44 as a guide. Confirm that there is a minimum of 2 diameters edge margin from edge of the C238-18 frame.
d) If the edge margin is acceptable, drill one #13 hole in the location marked in step c.
e) Place the LAM-R44-2 mount attach clamp fitting under the lip of the C238-18 frame and install the AN3-4A bolt with Loctite® Blue 242 ® on the threads.
f) Place the ***Airglas Inc.*** ® RFMS in rotorcraft flight manual.
g) Revise rotorcraft weight and balance and equipment list. Calculate weight and balance with 150 lbs. pilot and full fuel. If calculation shows CG aft of limit, fixed ballast must be installed to comply with solo pilot weight limitation of Section 2 of Pilots Operating Handbook.

Note: The installed weight of any user installed portable devices must be included in the weight and balance calculations.

h) File form 337 and record installation in permanent rotorcraft records.

3.0 Removal and Re-installation

3.1 Removal

a) Remove the two aft MS27039C0815 screws securing the inboard end of the LAM-R44 mount to the A479-1plate located in the lower instrument panel console (retain the screws).
b) Hold the LAM-R44 mount and remove the AN3-4A bolt from the LAM-R44-2 attach clamp fitting under the lip of the C238-18 frame. (retain the clamp fitting and bolt).
c) Remove the LAM-R44 from the helicopter.
d) If the helicopter is to be operated without the LAM-R44 mount, install two MS27039C0806 screws in the aft end of the A479-1 plate located in the lower instrument panel console. Revise the rotorcraft weight and balance, and

record the removal in the permanent rotorcraft records.

3.0 Removal and Re-installation-Continued

3.2 Re-Installation:

a) If installed: Remove the two aft MS27039C0806 screws from the A479-1plate located in the lower instrument panel console (discard the screws).
b) Place the LAM-R44 portable device mount in the cabin and secure it with two MS27039C0815 screws using the two fastener locations vacated in step a.
c) Place the LAM-R44-2 mount attach clamp fitting under the lip of the C238-18 frame and install the AN3-4A bolt with Loctite® Blue 242 ® on the threads.
d) Confirm the **Airglas Inc.** ® RFMS is in the rotorcraft flight manual.
e) Confirm the rotorcraft weight and balance and equipment list reflect the installation of the LAM-R44. If needed, calculate weight and balance with 150 lbs. pilot and full fuel. If calculation shows CG aft of limit, fixed ballast must be installed to comply with solo pilot weight limitation of Section 2 of Pilots Operating Handbook.

   Note: The installed weight of any user installed portable devices must be included in the weight and balance calculations.

f) Record installation in permanent rotorcraft records.

4.0 Servicing Information:

The LAM-R44 portable device mount is virtually maintenance free. Due to the small size of the parts, repairs are not generally economically practical. Replace all worn or damaged components with new.

5.0 Instructions for Continued Airworthiness

5.1 Maintenance and Ground Handling Restrictions:

a. DO NOT – Subject to flame or high heat.
b. DO NOT – Subject to harsh solvents or caustic chemicals.

5.2 Maintenance and Operational Checks

Damage Classification

Negligible Damage (replace as desired)

a. Small and shallow nicks, scratches and abraded areas on the top or bottom.

5.0 Instructions for Continued Airworthiness-Continued

b. Stress Cracks in the gel coat.

NOTE: Stress Cracking in the gel coat from flexing are cosmetic and ARE NOT an airworthiness issue.

Daily Preflight Check (May be performed by appropriately rated pilot)

A visual inspection is required prior to each flight for overall condition of all associated hardware. **Replace or repair any damaged parts before next flight.**

a. Inspect for loose or stripped attach screws or damage to attaching clamps.
b. Inspect for cracks, holes, or abraded areas in the carbon mount.
c. Inspect for obstruction of pilots view.
d. Inspect for obstruction of controls.

Inspection Criteria-100 Hour/Annual Inspection Interval

Replace or repair any damaged parts before next flight.

a. Inspect for loose or stripped attach screws or damage to attaching clamps.
b. Inspect for cracks, holes, or abraded areas in the carbon mount.
c. Inspect for obstruction of pilots view.

5.3 Maintenance and Repairs

The LAM-R44 portable device mount is virtually maintenance free. Due to the small size of the parts, repairs are not generally economically practical. Replace all worn or damaged components with new.

6.0 Weight and Balance

ITEM	WEIGHT	LONGITUDINAL CG	LATERAL CG
LAM-R44	.6 lbs.	23.8	12.375
Portable device(s) Use actual weights-			

Calculate the rotorcraft weight and balance and equipment list to reflect the

6.0 Weight and Balance-Continued

installation of the LAM-R44. If needed, calculate weight and balance with 150 lbs. pilot and full fuel. If calculation shows CG aft of limit, fixed ballast must be installed to comply with solo pilot weight limitation of Section 2 of Pilots Operating Handbook.

Note: The installed weight of any user installed portable devices must be included in the weight and balance calculations.

7.0 Drawings and Diagrams

Nomenclature	Drawing Number	REV	Sheet _ of _	Date of Revision
Flight Manual Supplement	AI-LAM-R44-FM	Original	1 thru 5	
LAM-R44 PORTABLE DEVICE MOUNT BRACKET INSTALLATION ON ROBINSON R44	LAM-R44	B	1 and 2	February 25, 2014
ICA, Including Installation, Maintenance & Service Instructions	LAM-R44-105	B	1 thru 8	February 25, 2014

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