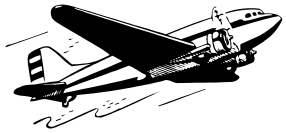


Mtn View Aviation
An AP Enterprises, LLC Company
PO Box 31
Hubbard, OR 97032

MVA-B40C10M&O
Installation and Instructions for Continued Airworthiness for *Door Steward*™ In Accordance with STC SA01120SE

Contents

Approved for Release *David L. Paradis*

Revision D, July 7, 2017

General Installation Instructions

A. Introduction.

Insure that the intended aircraft is included in the eligibility of the STC. Installation to be accomplished by an FAA licensed Airframe Mechanic and inspected by an FAA licensed Airframe and Powerplant Mechanic with Inspection Authorization or by an FAA Part 145 Repair Station. Review all of the installation instructions before beginning the installation process. Pay particular attention to "NOTES" and "CAUTIONS". Inventory the kit prior to beginning to insure it is complete. Upon completion of the installation, an FAA Form 337, Major Repair and Alteration form will need to be completed and submitted to the FAA. A form has been provided in SECTION D. For questions, comments or problems with this installation please contact Mtn View Aviation, PO Box 31, Hubbard, OR 97032, Ph. (503) 981-4550, Fax (866) 554-3798, email info@mtnviewaviation.com. Please contact Mtn View Aviation for any in service problems or difficulties with this product.

B. Description of the Product.

The ***Door Steward™*** is a product improvement installation that greatly improves the operation of the aircraft doors. The installation consists of a gas spring attached to brackets mounted on the door and the airframe. When the door is unlatched the gas spring gently but firmly opens the door to the full open position. The gas spring while in the open position protects the aircraft and occupants from unexpected openings and closings by providing resistance to wind gusts and prop wash. In addition, the gas spring is extremely simple and reliable. The weight of each door installation is ½ Lb. Closing the door compresses the gas spring. The gas spring can easily be removed from its brackets to facilitate removal of the aircraft door, replacement of a defective gas spring or to conduct other maintenance.

C. Tools and Equipment Requirements.

1. Screwdriver, as required for interior removal.
2. Drill Motor or (90º drill preferred), #30 hi-speed drill and drill stop.
3. 1/8" Clecos and Cleco Pliers
4. Cherrymax G-27 Hand Riveter or suitable equivalent
5. Cherrymax rivet gage
6. Deburring tool(s) and hand files
7. Dremel or equivalent
8. Wrenches, 7/16" and 1/2", open end
9. 12" scale or tape measure

D. General Installation Preperation.

1. Refer to the Aircraft Manufacturer's Maintenance Instructions for information regarding standard practices, precautions and notes.
2. It is the installer's responsibility to insure that this approved installation does not interfere or conflict with any other installed equipment or options previously installed on the aircraft.

SECTION A1

This section applicable to Beechcraft Model Series 33, 35, 36, 55, 56, 58 and 95 Main Cabin Entry Doors and Baggage Doors

A. Installation Main Cabin Doors.

CAUTION:

Leave the existing factory door hold open arm in place during the initial installation. Damage to the hinge brackets can occur if the door extends open too far.

1. The airframe bracket will be located at approximately 1.0" to 3.0" aft of the most forward point of the horizontal door sill. This will put the airframe bracket approximately half way between the existing hold open rod pivot point and the forward corner of the lower door sill. Select a location that avoids as many existing rivet or screws as possible.
2. Remove or pull back the RH interior panel far enough to give access to the airframe structure below the forward door sill. Remove or loosen any interior door panels to expose the lower area of the door where the door bracket will be installed. This will be just aft of the existing factory door hold open arm.
3. On some aircraft, wind lace may be installed between layers or sandwiched on the door sill. The airframe bracket can be fitted above or between the layers. Most often in this situation between layers gives a cleaner appearance and allows easier reinstallation of the wind lace. The wind lace retention material will need to be removed in the area where the bracket is to be installed. (Refer to picture 3.)

Airframe Bracket Installation

4. Locate the airframe bracket, P/N B40C102-1, onto the lower door sill. Position as described in step 1 above. Early aircraft may have a channel sill which extends inboard from the structure and is utilized to secure the top of the interior upholstery panel. This lip, if present, will need to be cut away under the bracket just far enough to allow the lower part of the bracket to make solid contact with the lower structure for riveting. Use a Dremel or equivalent cutoff wheel to cutoff the lip. (Refer to Pictures 1 & 2, Beechcraft Bonanza 35)

Picture 1. Cutting out sill area (Not Required on All Installations)

Picture 2. Airframe Bracket Clecoed in place.

5. In most installations the top 4 pilot holes can be utilized for attachment to the top of the sill. On the lower part, which will be under the interior panel, locate at least 4 pilot holes best suited for attachment. Standard practices are not to locate any holes within 2.0 times the rivet diameter from the edge or any existing holes. If there are existing rivets in the structure removed, insure there are an equal number of blind rivets reinstalled in that area, again insuring that you either reuse the existing rivet hole or remain 2.0 times the rivet diameter from the existing hole. Remove the bracket and drill the holes in the bracket that will be used for attachment with a #30 drill bit and debur.
6. Now the airframe bracket will be your template, place it in position, drill attachment holes with a #30 drill and secure with cleco's. It may be helpful to use a drill stop.
7. Remove the bracket and debur the holes drilled in the airframe.
8. Cleco the airframe bracket in place. Use a cherrymax measuring tool to size the correct length of rivet, either CR3213-4-2 or CR3213-4-3. Install the bracket with the correct rivets. (refer to Pictures 3 & 4, Beechcraft Bonanza S35)

Picture 3.
Note: Bracket position between layers.

Picture 4.
Bracket riveted, wind lace reinstalled between layers

9. Inspect the installation for security and proper installation of the rivets.
10. Remove the factory door hold open arm retention device on the bottom of the arm before reinstalling the interior panel by removing the cotter key or nut.

    CAUTION: Do not remove the arm at this time as damage to the door hinge plates can occur if the door is opened too far. It is advisable to verify that the hold open rod can be removed as some may have corrosion issues making them difficult to remove.

11. Reinstall the interior panel.

Door Bracket Installation

12. Temporarily install the ball stud P/N MVA9004-01 onto the door bracket P/N 201C103-2. Install the rod end threaded stud of the gas spring into the mounted airframe bracket with self-locking nut and washer and install the tube end onto the uninstalled door bracket P/N 201C103-2 .
13. Using the door bracket as the template and the factory hold open rod still installed, hold the aircraft door at the full open position. If the airplane does not have a windlace installed around the door sill you may locate the bracket at the bottom of the door and possibly avoid any interior door panel modification. If the airplane has a wind lace you may want to hold the door bracket up off the very bottom of the door so that the nut on the ball stud does not damage the windlace when opening and closing the door. You may also invert the door bracket to locate the ball stud higher on the door. Mark the location of the door bracket.
14. Remove the door bracket from the rod end of the gas spring and review the marked location. Any interior attachment holes blocked or very near the door bracket can be abandoned as the gas spring and other attachment holes near the bracket will retain the interior panel in this area. Remove the ball stud from the bracket.

Picture 5. Drilling Door Bracket

Picture 6. Door Bracket Installed

15. If satisfied with the door bracket location, position the bracket and drill all holes with a #30 drill. Only drill through the inner door panel. It may be helpful to use a drill stop. Debur the holes drilled in the door.
16. Cleco the door bracket in place. Use a cherrymax measuring tool to size the correct length of rivet, either CR3213-4-2 or CR3213-4-3. Install the bracket with the correct rivets.
17. Inspect the installed bracket for security and proper installation of the rivets.
18. Hold the door interior panel in the installed position, if the door bracket extends below the panel reinstall the panel. If the door bracket contacts the back of the panel, note the exact contact point and use a dremel or equivalent cutoff wheel to cut a small slot in the panel just enough to allow the bracket to protrude through.

Picture 7, Slotting Interior panel on Baron.

19. Reinstall the door panel, then the ball stud on the door bracket with the supplied washer and ¼-20 self locking nut. Torque nut to 40"lbs.
20. Remove the factory hold open rod by partially closing the door while pressing down on the arm. There is a pin in the arm which keeps the arm in the door slot, near the middle of the door travel this pin is aligned with the door slot at which point the arm can be pushed down disengaging the arm from the door. The arm can now be pulled up out of its pivot hole on the airframe provided the retention feature was removed in step 10 above.

    CAUTION: Insure the door does not open too far with hold open rod removed and the gas spring not yet installed, as damage to the hinge plates can occur.

21. Install the tube end of the gas spring on the door bracket. Insure the safety clip is installed to securely lock the gas spring in place on the door bracket.

NOTE:

The gas spring is filled with nitrogen and has a small amount of oil for dampening. The oil also acts as a lubricant for the seal so the spring needs to be installed with the tube end up allowing the oil to keep the seal lubricated.

Picture 8. Opened

Picture 9. Closed
Note door bracket mounted up slightly to avoid contact on the wind lace.

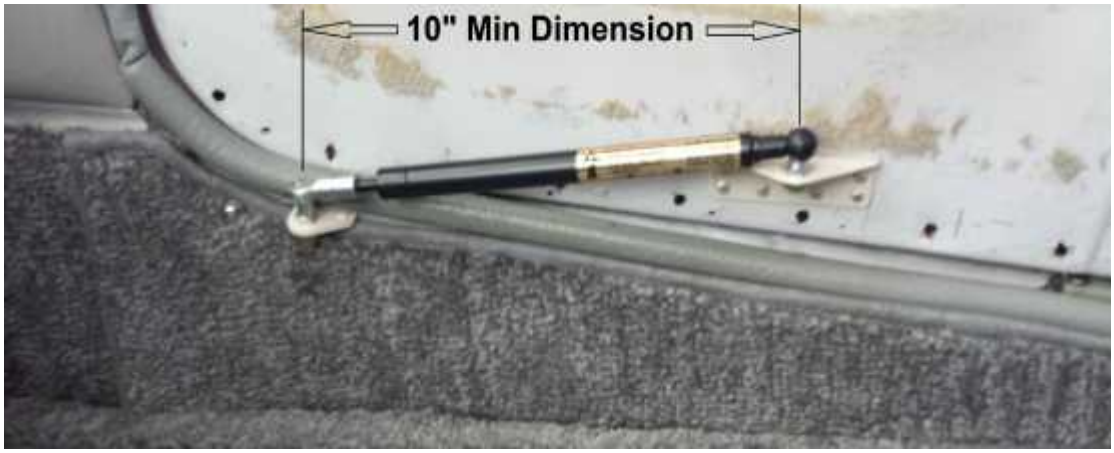
B. Installation Baggage Doors.

1. Both the standard (approx. 20 1/4" wide) and oversize (approx. 38 1/2" wide) baggage doors are covered by this installation section.
2. The airframe bracket, P/N B40C102-1, will be located approximately 4" aft of the vertical door post area. Remove any interior panels and loosen any windlace to gain access to the door sill structure.
3. Typically the door sill associated with the oversize baggage door has a sill cover with a raised ridge running down the center. On this configuration the raised portion of the sill cover the width of the airframe bracket will need to be removed to allow the airframe bracket to be attached to the top of the remaining sill cover. A small cutoff tool, such as a Dremel is good for this modification. Clean up the cut area with a file as necessary so that the airframe bracket will position with good contact to the sill cover.

Picture 10.

4. The airframe bracket will be attached to the door sill with 4 Cherry Max rivets from the top down and 2 Cherry Max rivets in the inside attaching it to the side of the door sill. It is easier to enlarge the pilot holes in the airframe bracket on a drill press and a #30 drill.
5. Using the airframe bracket as a drill guide drill the door sill for the six attachment rivets, adding clecos as you drill. Remove the airframe bracket and debur your new holes in the sill. Check for proper rivet length and most applications will use -2 and/or -3 length Cherry Max rivets. All B40C10 Rev "B" kits will also include 4 each CR3213 4-4 Cherry Max rivets to accommodate attaching the airframe bracket to the modified door sill cover of the oversize baggage door. If you have a Rev "A" kit and need the CR3213 4-4 rivets you will need to procure locally.
6. Attach the airframe bracket to the door sill with the correct length Cherry Max rivets. Check that the airframe bracket is secure to the door sill with no relative movement or apparent looseness.
7. Any door sill windlace will need to be trimmed or slit to accommodate going around the installed airframe bracket. Picture 11.

8. Install the door bracket, P/N 201C103-2 inverted on the door in a position that will be not less than the 10” dimension as depicted in the picture with the door closed and approximately 1” above the bottom of the door. Angle the bracket slightly to align with the airframe bracket.



Picture 12.

Using the bracket as a drill guide, drill and cleco as you go along. When all eight holes are drilled, remove the bracket, debur holes and then install with Cherry Max rivets provided.

Picture 13.

9. Once the bracket is installed you will need to locate its position on the door interior panel so you can carefully provide a slot for the bracket to protrude through. Install the interior panel, install the threaded ball stud, P/N MVA-9004-01 with its washer and self locking nut. Install the gas spring onto the door bracket mounted ball stud, install the safety clip, P/N MVA-9002-01 and install the rod end with threaded stud onto the airframe bracket with washer and self locking nut.

Picture 14 Small Baggage Door.

Picture 15 Large Baggage Door.

C. Post Installation Inspection and Operation.

1. Operate the door(s) through several opening and closings to insure smooth and proper operation. Close and latch the door and inspect the interior of the aircraft. Insure the gas spring is not going to hinder or interfere with the operation of the seats, seat belts or any other feature.
2. Open the door. Insure that in the open position the gas spring does not cause the door any unintended contact with other structure.
3. Inspect the open position to insure the gas spring is not significantly hindering entry and exit from the aircraft.
4. If all inspections are satisfactory, proceed to the final steps.

D. Final Steps.

1. Install the supplied ***Door Steward***™ ***Equipped*** decal to the exterior of the aircraft near the door latch assembly. The purpose of this decal will be to provide an indication that when the door latch is opened; the door will want to push open on its own.
2. Install the following SECTION B, Maintenance, Inspection & Repair Instructions and SECTION C, Parts List, in the aircraft maintenance records.
3. Complete the FAA Form 337, Major Repair and Alteration using the included form in SECTION D.
4. Complete the logbook entry in accordance with CFR 14 Part 43, Maintenance, Preventive Maintenance, Rebuilding and Alteration.
5. STC Written permission statement (MVA-L-200) is provided on direct sale transactions from Mtn View Aviation. If you did not receive this permission statement that should be part of your permanent aircraft records, email Mtn View Aviation at info@mtnviewaviation.com with the aircraft make, model, serial number, registration number, the registered owner address, date of purchase and where purchased and one will be sent via email.

END

SECTION A2

This section applicable to Piper Model Series PA23, PA24, PA28, PA30, PA32, PA34, PA39, PA40 and PA44

A. Introduction.

NOTE:

Most doors have a hold open slide lock attached to the airframe and door with a 10-32 screw, bushing and rubber washer. On most single engine Pipers the slide lock attach location is approximately 4" aft of the vertical door post. The PA24 Comanche slide lock attaches further aft on the airframe and further forward on the door. The Comanche, Apache, Aztec door sill transitions to the vertical door post with a square corner. The other aircraft have a rounded corner. The forward side of the airframe bracket should be located approximately 2" – 4" aft of the vertical door post.

Twin engine Pipers have either a slide lock, like the single engine, or a hold open lock on the engine nacelle. The slide locks will require removal, the nacelle locks can in most cases be left installed.

1. PA28 Cherokee

2. PA24 Comanche

3. PA32 Saratoga

4. PA30 Twin Comanche

1. Remove the existing (factory) door hold open slide lock. Be careful the door does not swing fast forward and damage the door hinges or cowl. On most single engine aircraft there is a small bump pad attached to the cowl. For ease of installation the door can be positioned against the cowl, tape a soft pad to the cowl to prevent any paint scratches.

2. Remove the interior door panel to expose the lower area of the door where the door bracket will be installed. The door bracket will be located near the aft end of the recessed area for the slide lock. Remove the co-pilot seat. Remove the sill cover. Remove or pull back the RH interior panel far enough to give access to the airframe structure below the forward door sill.
3. On most installations the airframe bracket will be located approximately over the existing screw attach hole for the slide lock. On the Comanche and twins select a location 2" – 4" aft of the vertical door post, avoiding as many existing rivets as possible.
4. On some aircraft, wind lace may be installed on the door sill. The wind lace retention material may need to be removed in the area where the bracket is to be installed. If the wind lace interferes with the installation or operation of the rod pivoting on the bracket a small amount may need to be removed or notched.

Airframe Bracket Installation

5. Locate the airframe bracket, P/N B40C102-1, onto the lower door sill. Position as described in step 3 above. In most installations the top 4 pilot holes can be utilized for attachment to the top of the sill. If the bracket fits over the existing screw attach hole, locate the hole on the forward portion of the bracket between the forward pilot holes, and make sure the bracket is in its exact location when marking the hole. The screw will take the place of the 2 forward rivets. On the lower part, which will be under the interior panel, locate at least 4 pilot holes best suited for attachment. Standard practices are not to locate any holes within 2.0 times the rivet diameter from the edge or any existing holes. If there are existing rivets in the structure removed, insure there are an equal number of blind rivets reinstalled in that area, again insuring that you either reuse the existing rivet hole or remain 2.0 times the rivet diameter from the existing hole. Remove the bracket and drill the holes in the bracket that will be used for attachment with a #30 drill bit and debur. If a screw is used in the top drill the screw hole with a 3/16"drill bit.

5. Airframe Bracket utilized existing Slide lock screw attachment

6. Airframe bracket attached (Note: bottom 2 pilot holes not used)

6. Now the airframe bracket will be your template, place it in position, and if a screw is used, install the screw before drilling the airframe holes, (AN526-1032R10 preferred, not furnished). Drill attachment holes with a #30 drill and secure with cleco's. It may be helpful to use a drill stop.
7. Remove the bracket and debur the holes drilled in the airframe.

8. Cleco the airframe bracket in place. Use a cherrymax measuring tool to size the correct length of rivet, either CR3213-4-2 or CR3213-4-3. Install the bracket with the correct rivets. (refer to Pictures 5 & 6)
9. Inspect the installation for security and proper installation of the rivets.
10. Notch or slot the sill cover for the new bracket with a dremel or equivalent cutoff wheel and reinstall, reinstall the interior panel and seat.

Door Bracket Installation

11. Single Engine - Using the door bracket, a 12 inch ruler or tape measure and pencil, close the door and latch. Measure from the center of the installed airframe bracket gas spring attach hole to the forward end of the door bracket. The bracket should be placed at the bottom of the door, flush with the recessed area for the slide lock at a distance of not less than 8". Mark a pencil line on the door to indicate the location. Pay particular attention to this measurement, installing the door bracket any less than 8" from the airframe bracket will bottom the gas spring before the door is fully closed and more than 8" starts to limit the full open position. Any interior attachment holes blocked or very near the door bracket can be abandoned as the gas spring and other attachment holes near the bracket will retain the interior panel in this area.

7. **NOTE: DOOR BRACKET MUST NOT BE CLOSER THAN 8" FROM THE AIRFRAME BRACKET.**

12. Twin Engine – Temporarily install the ball stud P/N MVA-9004-01 onto the door bracket P/N 201C103-2. Install the rod end of the gas spring onto the mounted airframe bracket and install the tube end onto the uninstalled door bracket P/N 201C103-2. Using the door bracket as the template hold the aircraft door at the full open position, approximately ½" from the engine nacelle, mark the location of the door bracket on the door. Insure the bracket is located at the bottom of the door. Remove the door bracket from the rod end of the gas spring and review the marked location. Any interior attachment holes blocked or very near the door bracket can be abandoned as the gas spring and other attachment holes near the bracket will retain the interior panel in this area. Remove the ball stud from the bracket.

8. Installing Door Bracket

9. Door Bracket installed

13. If satisfied with the door bracket location, position the bracket and drill all holes with a #30 drill. Only drill through the inner door panel. It may be helpful to use a drill stop. Debur the holes drilled in the door.
14. Cleco the door bracket in place. Use a cherrymax measuring tool to size the correct length of rivet, either CR3213-4-2 or CR3213-4-3. Install the bracket with the correct rivets.
15. Inspect the installed bracket for security and proper installation of the rivets.
16. Hold the door interior panel in the installed position, if the door bracket extends below the panel, reinstall the panel. If the door bracket contacts the back of the panel, note the exact contact point and use a dremel or equivalent cutoff wheel to cut a small slot in the panel just enough to allow the bracket to protrude through.

10. Slotting Interior panel.

17. Reinstall the door panel, then the ball stud on the door bracket with the supplied washer and ¼-20 self locking nut. Torque the nut to 40”lbs.
18. Install the tube end of the gas spring on the door bracket. Insure the safety clip is installed to securely lock the gas spring in place on the door bracket. Attach the rod end to the airframe bracket with the supplied washer and ¼-28 self-locking nut.

NOTE:

The gas spring is filled with nitrogen and has a small amount of oil for dampening. The oil also acts as a lubricant for the seal so the spring needs to be installed with the tube end up allowing the oil to keep the seal lubricated.

Picture 11. Opened

Picture 12. Closed

Note door bracket mounted up slightly

B. Post Installation Inspection and Operation.

1. Operate the door through several opening and closings to insure smooth and proper operation. Close and latch the door and inspect the interior of the aircraft. Insure the gas spring is not going to hinder or interfere with the operation of the seats, seat belts or any other feature.
2. Open the door. Insure that in the open position the gas spring does not cause the door any unintended contact with other structure.
3. Inspect the open position to insure the gas spring is not significantly hindering entry and exit from the aircraft.
4. If all inspections are satisfactory, proceed to the final steps.

C. Final Steps.

1. Install the supplied ***Door Steward***™ ***Equipped*** decal to the exterior of the aircraft near the door latch assembly. The purpose of this decal will be to provide an indication that when the door latch is opened; the door will want to push open on its own.
2. Install the following SECTION B, Maintenance, Inspection & Repair Instructions and SECTION C, Parts List, in the aircraft maintenance records.
3. Complete the FAA Form 337, Major Repair and Alteration using the included form in SECTION D.
4. Complete the logbook entry in accordance with CFR 14 Part 43, Maintenance, Preventive Maintenance, Rebuilding and Alteration.
5. STC Written permission statement (MVA-L-200) is provided on direct sale transactions from Mtn View Aviation. If you did not receive this permission statement that should be part of your permanent aircraft records, email Mtn View Aviation at info@mtnviewaviation.com with the aircraft make, model, serial number, registration number, the registered owner address, date of purchase and where purchased and one will be sent via email.

END

SECTION B

Instructions for Continued Airworthiness

For questions, comments or problems with this installation please contact Mtn View Aviation, PO Box 31, Hubbard, OR 97032, Ph. (503) 981-4550, Fax (866) 554-3798, email info@mtnviewaviation.com. Please contact Mtn View Aviation for any in service problems or difficulties with this product.

ATA Chapter 05 Time Limits/Maintenance Checks

05-00 General

The ***Door Steward***™ installation should be inspected during scheduled airframe periodic inspections that cover the door and door frame areas.

05-10 **FAA Approved** Airworthiness Limitations Section

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14 CFR §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

There are no new (or additional) airworthiness limitations associated with this equipment and/or installation.

05-20 Scheduled Maintenance

Inspection of the installation will consist of the following:

1. Security of attachment of both airframe and door brackets to the associated structure.
2. Security of the gas spring attachment to their associated brackets.
3. Security of the rod end to the airframe bracket and ball stud to the door bracket.
4. Smooth operation of the gas spring. Inspect for evidence of end seal leakage or loss of gas spring pressure.

ATA Chapter 52 Doors

52-00 General

The ***Door Steward™*** is a product improvement installation that greatly improves the operation of the aircraft doors. The installation consists of a gas spring attached to brackets mounted on the door and the airframe. When the door is unlatched the gas spring gently but firmly opens the door to the full open position. The gas spring while in the open position protects the aircraft and occupants from unexpected openings and closings by providing resistance to wind gusts and prop wash. In addition, the gas spring is extremely simple and reliable. The weight of each door installation is ½ Lb. The original door hold open arm is replaced by the ***Door Steward™***. Closing the door compresses the gas spring. The gas spring can easily be removed from its brackets to facilitate removal of the aircraft door, replacement of a defective gas spring or to conduct other maintenance.

1. Removal of the gas spring from attachment ball stud(s).

On the all steel end fittings a safety clip may be installed as a secondary retention device. The safety clip must be removed before attempting to remove the gas spring. Grip the gas spring at the end fitting and pull it directly up off of the ball stud. Repeat for the opposite end if equipped with ball stud. To remove gas spring from airframe bracket with integral stud, remove self locking nut and washer.

2. Installation of the gas spring onto the attachment ball studs.

The all steel end fitting can be pushed onto the ball stud providing the safety clip is not installed. Push the end fittings onto the ball studs. The all steel end fittings come fitted with an internal circlip to capture the ball stud. Install the optional safety clip on the all steel end fittings, if so desired. The optional safety clip for the all steel end fittings provides a secondary positive retention to ensure the gas springs cannot come up off the ball stud. For gas spring with integral stud as part of the end fitting, insert into bracket and attach with AN365-428 self locking nut and washer.

3. Replacement of a loose or worn ball stud in either the airframe or door bracket.

Remove the ¼-20 self locking nut and remove the ball stud. Inspect the bracket for security of attachment to the associated structure. Install a new P/N MVA9004, ¼-20 threaded ball stud. Install washer and MVA9005-4 ¼-20 self-locking nut. Torque the

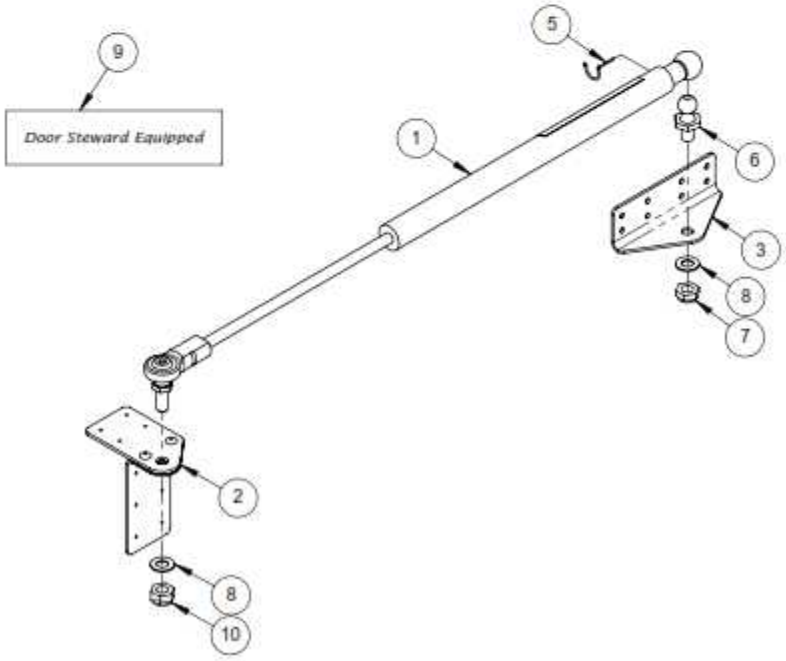
nut to 40 in. lbs. Inspect the installation for proper seating of the ball stud in the hole and for full engagement of the nut on the stud.

4. Defective gas spring.

A gas spring that has lost its dampening effect can sometimes be restored by removing the gas spring from the aircraft and store it vertically with the small diameter rod down for 30 minutes at room temperature. By hand and a sturdy work bench slowly compress the gas spring until nearly compressed and release it so it can extend back to full extension. Exercise in this manner a couple times and then reinstall it on the aircraft. The installed rod end is always to be lower than the tube end to allow the dampening oil to be near the seal. A gas spring which has lost pressure is not repairable. Replace defective gas spring with a new one with the same part number as removed. Gas spring end fittings which are damaged or worn can be replaced with new. Refer to the Parts List in SECTION C for the correct part number.

SECTION C
Parts List for B40C10 Installation

Item No.	Part Number	Description	Qty Reqd
	B40C10	Installation Assembly	Ref.
1	. 201C101-21	Gas Spring Assembly	1
	. . 201C101-002	Gas Spring, Chrome or Nitrided Rod	1
	. . MVA-9001	End Fitting, All Steel	1
	. . MVA-9008-21	Rod End Fitting, with Stud	1
	. . MVA-200	Identification Label	1
2	. B40C102-1	Bracket Assembly, Airframe	1
3	. 201C103-2	Bracket, Door	1
4	. CR3213 4-2	Rivets, Blind	8
	. CR3213 4-3	Rivets, Blind	8
	. CR3213 4-4	Rivets, Blind	4
5	. MVA-9002-01	Safety Clip	1
6	. MVA-9004-01	Ball Stud, 10mm, ¼-20 Threads	1
7	. MVA-9005-4	Locknut, Thin, ¼-20	1
8	. AN960-416L	Washer, Thin	2
9	. MVA201	Decal, Door Steward Equipped	1
10	. AN365-428	Nut, Self-Locking ¼-28	1



SECTION D

SAMPLE FAA FORM 337

U.S. Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved OMB No.2120-0020 2/28/2011	Electronic Tracking Number
For FAA Use Only	

INSTRUCTIONS: Print or type all entries. See Title CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation (49 U.S.C. §46301(a)).

1. Aircraft	Nationality and Registration Mark	Serial No.	
	Make	Model	Series
2. Owner	Name (As shown on registration certificate)	Address (As shown on registration certificate) Address City State Zip Country	

3. For FAA Use Only

4. Type		**5. Unit Identification**			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☒	**AIRFRAME**		*(As described in item 1 above)*	
☐	☐	**POWERPLANT**			
☐	☐	**PROPELLER**			
☐	☐	**APPLIANCE**	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency			
Name	☒	U.S. Certificated Mechanic	☐	Manufacturer
Address	☐	Foreign Certificated Mechanic	C. Certificate No.	
City State	☐	Certificated Repair Station		
Zip Country	☐	Certificated Maintenance Organization		

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐	Signature/Date of Authorized Individual

7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☑ APPROVED ☐ REJECTED

BY	☐	FAA Flt. Standards Inspector	☐ Manufacturer	☐	Maintenance Organization	☐	Person Appoved by Canadian Department of Transport
	☐	FAA Designee	☐ Repair Station	☐	Inspection Authorization	Other *(Specify)*	

Certificate or Designation No.	Signature/Date of Authorized Individual

FAA Form 337 (10-06)

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Nationality and Registration Mark	Date

Aircraft Total Time

Installed the Door Steward door assist gas spring modification in accordance with STC# SA01120SE, instructions MVA-B40C10M&O, on cabin and/or baggage door(s). Weight change negligble. Item added to the aircraft equipment list.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

The are NO MANDATORY replacement items, structural inspection intervals or related structural inspection procedures.

ATA Chapter 05 Time Limits/Maintenance Checks

05-00 General

The ***Door Steward*** ™ installation should be inspected during scheduled airframe periodic inspections that cover the door and door frame areas.

05-20 Scheduled Maintenance

Inspection of the installation will consist of the following:

1. Security of attachment of both airframe and door brackets to the associated structure.
2. Security of the gas spring attachment to their associated brackets.
3. Security of the rod end to the airframe bracket and ball stud to the door bracket.
4. Smooth operation of the gas spring. Inspect for evidence of end seal leakage or loss of gas spring pressure.

☐ Additional Sheets Are Attached