

ALL OPERATORS MESSAGE

Date: 26th June 2018

Ref. AOM: 42/72/2016/11 issue 2

This AOM is for information only and does not give instructions to Operators. It advises Operators of matters, which are currently, either under investigation or dealt with by ATR. However, Operators may consider initiating their own action. This AOM may be reissued to inform Operators of the closing action (Service Bulletin, No action required, etc...).

Aircraft models: ATR42 and ATR72

ATA: 52

SUBJECT: Passenger door forward handrail quick release pin

EFFECTIVITY

All ATR aircraft models with one of the following modifications installing a 2nd semi-automatic handrail:

- Service Bulletin No. ATR42-52-0083 or ATR72-52-1052 or modifications No. 04019, No. 04119, No. 04240, No. 04422, No. 04766.
- Service Bulletin No. ATR42-52-0067 or ATR72-52-1034 or modifications No. 04019, No. 04119.
- Modification No. 04422 or Service Bulletin No. ATR42-52-0072 or ATR72-52-1040.
- Modification No. 04766 or Service Bulletin No. ATR42-52-0080 or ATR72-52-1049.
- Modification No. 05392.

REASON

Some cases of passenger door forward handrail collapse resulting in passenger injury have been reported. The investigation revealed that, in such cases, the handrail collapsed because the quick release pin did not stay in the locking position due to:

- Improper pin engagement by crew
- or
- Red warning streamer improperly attached to the pin in maintenance
- or
- Accidental pin unlocked by passenger boarding/ disembarkation

To prevent such handrail collapse, the aim of this AOM is to recommend:

- 1) The operator to replace at the first opportunity, the current quick release pin P/N MS17990C412 by a new pin P/N MS17984C412.
- 2) The Operator crew members to make sure that the quick release pin is correctly locked,
- 3) The line maintenance staff to check that the quick release pin and red warning streamer are correctly installed. For the current quick release pin P/N MS17990C412, the red warning streamer has to be attached to the attaching ring and not to the handle ring (refer to Appendix 1 picture 3).

DESCRIPTION

The passenger door located at the rear left-hand side of the aircraft is an outward opening type door. Attached to the integrated stair structure is an aft folding handrail which, by means of a linkage to the fuselage structure automatically deploys when the door is opened. On ATR aircraft having embodied specific modification (refer to effectivity paragraph), a second adjustable forward handrail deploys automatically when opening the door, providing that the quick release pin is in “ground” normal position (refer to Appendix 1 Picture 1).

If the quick release pin fails to perform its intended function (or if it is not installed in “ground” position), the forward handrail will fall into its folded position (refer to Appendix 1 Picture 2).

When a passenger leans on the handrail, the handrail collapse may lead the passenger to fall off the stairs, possibly resulting in injury.

Further to the in-service events, ATR introduce:

- A quick release pin check and installation recommendation in the Cabin Crew Operating Manual revision RN03.
- A new quick release PIN: MS17984C412 to avoid accidental pin unlocking during boarding or disembarkation.

Note: Service Letters ATR42-52-5008 and ATR72-52-6008 previously published on this subject are also attached to this AOM for further clarification.

RECOMMENDATION

In order to avoid the risk of a passenger injury, ATR recommends:

- Operator cabin crew members to follow the Cabin Crew Operating Manual procedure, to check that the quick release pin is in good condition, and to make sure that, while opening the door prior to each boarding or disembarkation, the quick release pin is correctly locked.
- Line maintenance staff to check that for the quick release pin MS17990C412 (Double ring), and the red warning streamer are correctly installed at the attaching ring and not at the handle ring (refer to Appendix 1 picture 3).
- Operator, to replace at the first opportunity, the current quick release pin P/N MS17990C412 by the new interchangeable one P/N MS17984C412 (refer to Appendix 1 picture 4).

Note: The new P/N MS17984C412 will appear at the next revision of your IPC documentation. Please find in appendix 2 of this document an example of IPC advanced copy. Dedicated advanced copy can be delivered upon request.

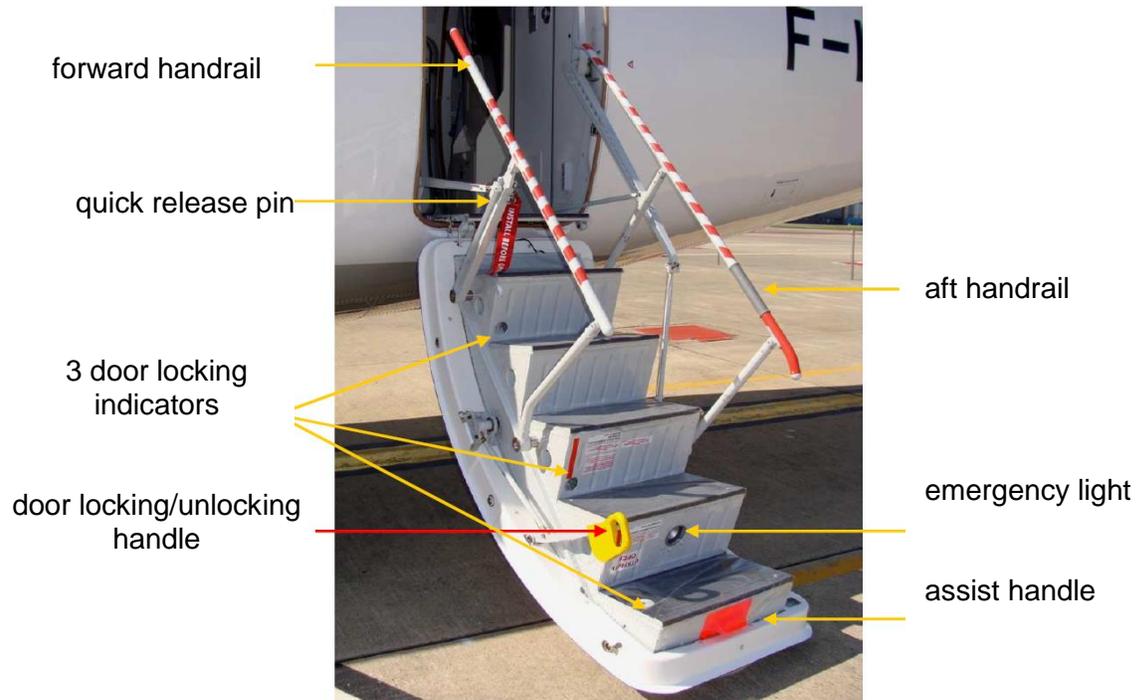
REFERENCE DOCUMENTS ATTACHED

- Service Letter ATR42-52-5008
- Service Letter ATR72-52-6008



D. CAILHOL
ATR Head of Continued Airworthiness
Email: continued.airworthiness@atr-aircraft.com

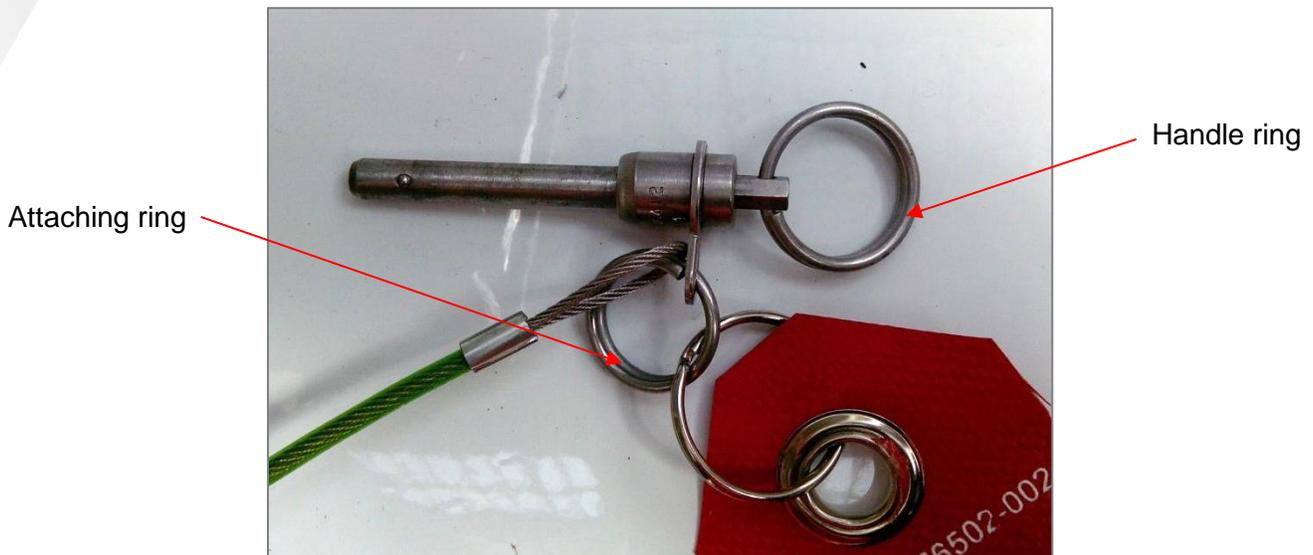
APPENDIX 1



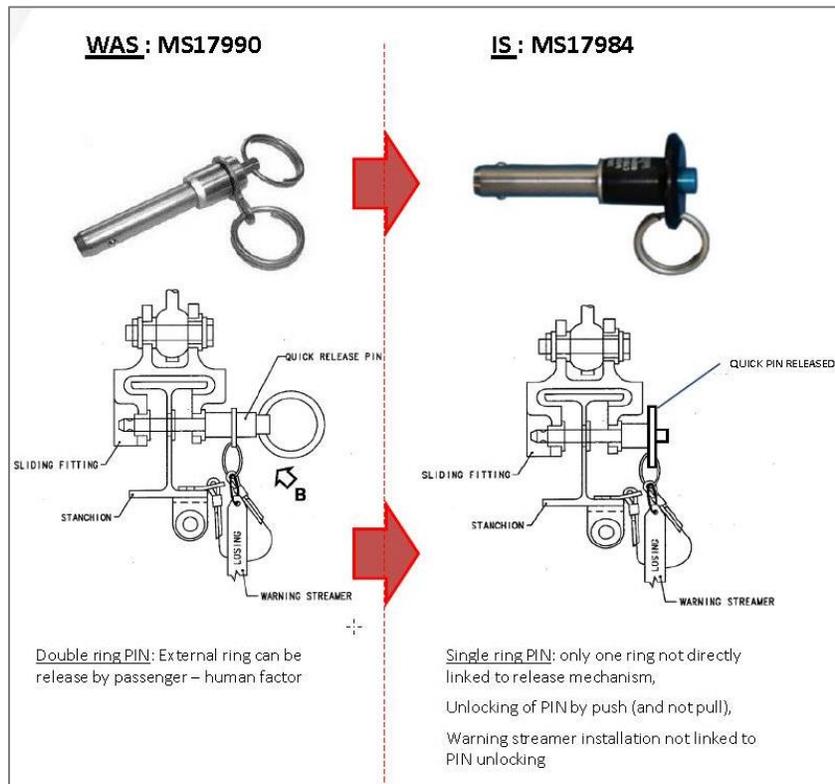
Picture 1: forward handrail in deployed position



Picture 2: forward handrail in folded position

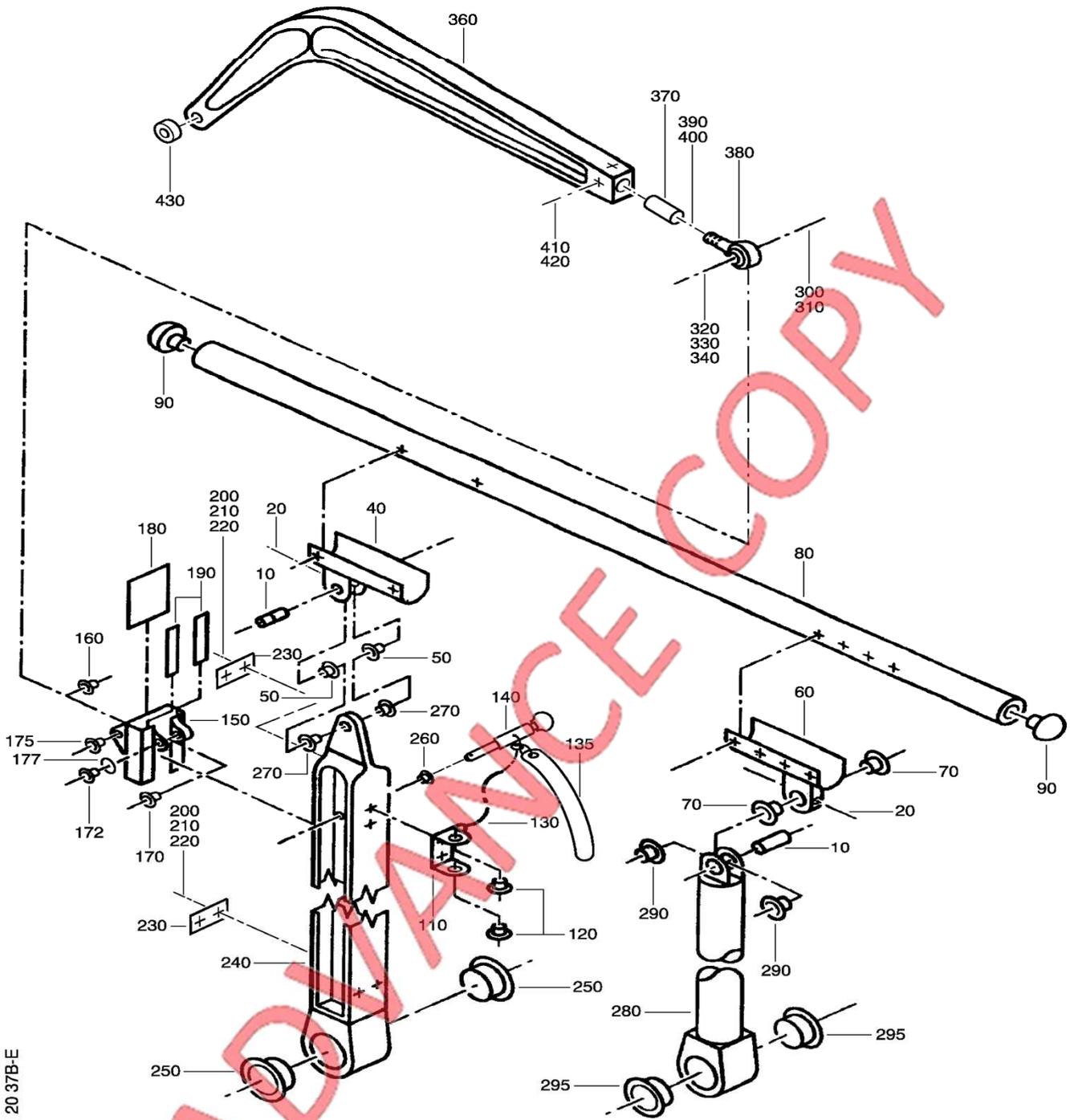


Picture 3: current quick release pin P/N MS17990C412 and its warning streamer correct installation



Picture 4: Current P/N MS17990C412 and New P/N MS17984C412 to be installed

APPENDIX 2 – IPC ADVANCED COPIES



SP5 52 11 20 37B-E

HANDRAIL INSTL-SECONDARY

Figure 37B

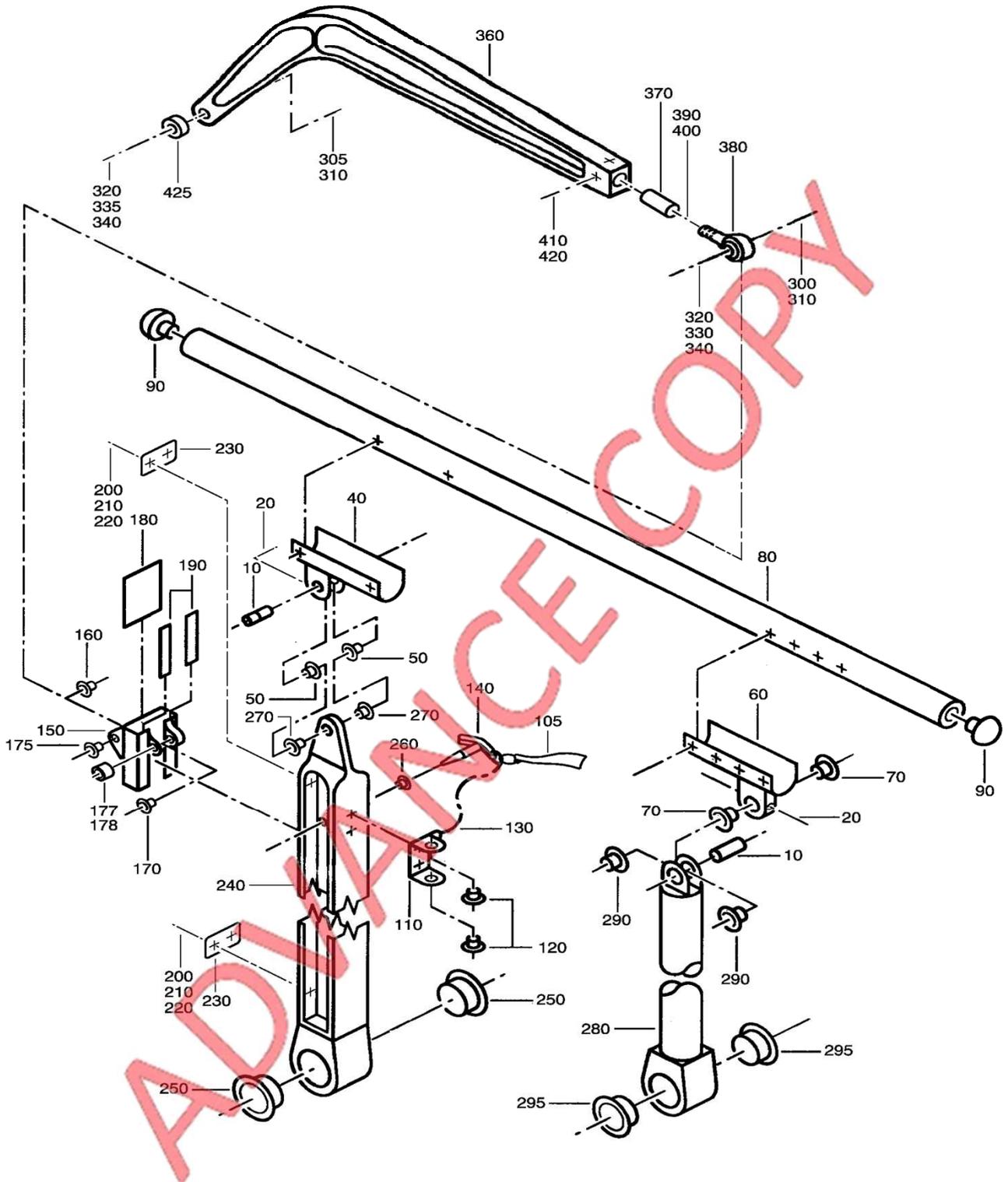
52-11-20 HANDRAIL INSTL-SECONDARY

| FIG | ITEM | PART NUMBER | NOMENCLATURE | USAGE | QTY |
|-----|-------|-----------------|---|--------------------|-----|
| 37B | - 1 | S5217650003462 | HANDRAIL INSTL-SECONDARY SEE 52-11-20-35C FOR NHA | (NP) | RF |
| | 10 | S5217651220000 | .PIN | | 002 |
| | 20 | MS16562-38 | .PIN | V96906 | 002 |
| | - 30 | S5217650102000 | .HANDRAIL ASSY | | 001 |
| | 40 | S5217651300600 | ..HANDRAIL ATTACH ASSY | | 001 |
| | 50 | M81934-2-04C006 | ...BUSHING | V81349 | 002 |
| | 60 | S5217651300400 | ..HANDRAIL ATTACH ASSY OPT TO S5217651300401 | (VA0170) | 001 |
| | 70 | S5217672020200 | ...BUSHING | | 002 |
| | 80 | S5217651122400 | ..HANDRAIL TUBE RPLD BY S5217651122402 | | 001 |
| | 90 | S5217650520000 | ..CAP | | 002 |
| | - 100 | S5217650802600 | .STANCHION ASSY POST SB52-0074 RPLD BY S5217650802800 RPLD BY S5217650803006 RPLD BY S5217650803206 | | 001 |
| | 110 | S5217652500000 | ..SUPPORT ASSY-PIN | | 001 |
| | 120 | NTA14453-04P009 | ...BUSH | | 002 |
| | 130 | NTA11950A4-5 | ..LANYARD OPT TO LT1504A4-5 | VT0000 (V84256) | 001 |
| | 135 | NAS1756N12 | ..FLAG | | 001 |
| | 140 | MS17990C412 | ..PIN-QUICK RELEASE BUY PN MS17984C412 | V96906 | 001 |
| | 150 | S5217652400600 | ..FITTING ASSY-SLIDING OPT TO S5217652400695 | (VA0170) | 001 |
| | 160 | NTA14453-04P017 | ...BUSH OPT TO BACB28AP04P017 | (VFB429) | 001 |
| | 170 | NTA14453-04P015 | ...BUSH OPT TO BACB28AP04P015 | (V81205) | 001 |
| | 172 | S5217652421400 | ...SPECIAL BUSHING | | 001 |
| | 175 | NTA14453-06P015 | ...BUSHING | | 001 |
| | 177 | MS16624-1037 | ...RING-RETAINER | | 001 |
| | 180 | S5217652420400 | ..PAD | | 001 |
| | 190 | S5217652420600 | ..PAD | | 002 |
| | 200 | NAS1152E5P | ..SCREW | V80205 | 004 |
| | 210 | NTA11551-2NDP | ..WASHER OPT TO BACW10BP2NDP | (V81205) | 004 |
| | 220 | NTA11354-08CM | ..NUT | | 004 |

HANDRAIL INSTL-SECONDARY

Figure 37B

| FIG | ITEM PART NUMBER | NOMENCLATURE | USAGE | QTY |
|-----|---------------------|--|----------|-----|
| 37B | 230 S5217652520200 | ..STOP S5217652520200 I/W S5217652520202 OPT TO S5217652520202 | (VA0170) | 002 |
| | 240 S5217652200600 | ..STANCHION ASSY RPLS S5217652200695 | | 001 |
| | 250 M81934-2-20A016 | ..BUSHING | V81349 | 002 |
| | 260 S5217652220800 | ..BUSHING | | 001 |
| | 270 S5217672020200 | ..BUSHING | | 002 |
| | 280 S5217650802400 | ..STANCHION ASSY RPLS S5217650800800 | | 001 |
| | 290 M81934-2-04A008 | ..BUSHING | V81349 | 002 |
| | 295 M81934-2-20C016 | ..BUSHING | V81349 | 002 |
| | 300 NAS6704U18 | ..BOLT | V80205 | 001 |
| | 310 NTA11551-4ACU | ..WASHER OPT TO BACW10BP4ACU | (V81205) | 001 |
| | 320 NTA11551-4DP | ..WASHER OPT TO BACW10BP4DP | (V81205) | 001 |
| | 330 NTA14451-04P029 | ..BUSHING | | 001 |
| | 340 NTA11354-4CM | ..NUT | | 001 |
| - | 350 S5217652100200 | ..LINK ASSY | | 001 |
| | 360 S5217652120200 | ..LINK-HANDRAIL FWD | | 001 |
| | 370 S5237944120200 | ..INSERT | | 001 |
| | 380 MS21221-4K | ..ROD END | V96906 | 001 |
| | 390 NAS509-6 | ..NUT-JAM | VT0000 | 001 |
| | 400 NAS513-6 | ..WASHER | VT0000 | 001 |
| | 410 NTA11151-5K13 | ..BOLT | | 002 |
| | 420 NTA11752-5 | ..COLLAR | | 002 |
| | 430 NTA14554-04C | ..BEARING-PLAIN-SELF ALIGNING | | 001 |



RP5 52 11 20 37B-F

HANDRAILS INSTL-FR36-FR39,Z255

Figure 37B

52-11-20 HANDRAILS INSTL-FR36-FR39,Z255

| FIG | ITEM | PART NUMBER | NOMENCLATURE | USAGE | QTY |
|-----|--------|-----------------|--|--------------------|-----|
| 37B | - 1 | S5217650002061 | HANDRAILS INSTL-FR36-FR39,Z255 SEE 52-11-20-35E FOR NHA | (NP) | RF |
| | 10 | S5217651220000 | .PIN POST SB52-1034 POST SB52-1052 POST CI98-342B | | 002 |
| | 20 | MS16562-38 | .PIN POST SB52-1034 POST SB52-1040 POST SB52-1052 POST CI98-342B | V96906 | 002 |
| | - 30A | S5217650180000 | .HANDRAIL TUBE ASSY POST SB52-1034 | | 001 |
| | 40 | S5217651300600 | ..HANDRAIL ATTACH ASSY | | 001 |
| | 50 | M81934-2-04C006 | ...BUSHING | V81349 | 002 |
| | 60 | S5217651300400 | ..HANDRAIL ATTACH ASSY OPT TO S5217651300401 | (VA0170) | 001 |
| | 70 | S5217672020200 | ...BUSHING | | 002 |
| | 80 | S5217651122400 | ..HANDRAIL TUBE RPLD BY S5217651122402 | | 001 |
| | 90 | S5217650520000 | ..CAP | | 002 |
| | - 100 | S5217650802600 | .STANCHION ASSY POST SB52-1040 POST SB52-1052 RPLD BY S5217650802800 | | 001 |
| | - 100A | S5217650802800 | .STANCHION ASSY RPLS S5217650802600 RPLD BY S5217650803006 RPLD BY S5217650803206 | | 001 |
| | 105 | NAS1756N12 | ..FLAG RPLD BY S5217650200200 | | 001 |
| | 105B | S5217650200200 | ..FLAG POST SB52-1063 POST CI98-342B | | 001 |
| | 110 | S5217652500000 | ..SUPPORT ASSY-PIN | | 001 |
| | 120 | NTA14453-04P009 | ...BUSH | | 002 |
| | 130 | NTA11950A4-5 | ..LANYARD OPT TO LT1504A4-5 | VT0000 (V84256) | 001 |
| | 140 | MS17990C412 | ..PIN-QUICK RELEASE BUY PN MS17984C412 | V96906 | 001 |

HANDRAILS INSTL-FR36-FR39,Z255

Figure 37B

52-11-20

PAGE 37B -1

52-11-20 HANDRAILS INSTL-FR36-FR39,Z255

| FIG | ITEM PART NUMBER | NOMENCLATURE | USAGE | QTY |
|-----|---------------------|---|----------|-----|
| 37B | 150 S5217652400600 | ..FITTING ASSY-SLIDING OPT TO S5217652400695 | (VA0170) | 001 |
| | 160 NTA14453-04P017 | ...BUSH POST SB52-1040 OPT TO BACB28AP04P017 | (VFB429) | 001 |
| | 170 NTA14453-04P015 | ...BUSH OPT TO BACB28AP04P015 | (V81205) | 001 |
| | 175 NTA14453-06P015 | ... BUSHING | | 001 |
| | 177 S5217652421400 | ... SPECIAL BUSHING | | 001 |
| | 178 MS16624-1037 | ... RING-RETAINER | | 001 |
| | 180 S5217652420400 | .. PAD | | 001 |
| | 190 S5217652420600 | .. PAD | | 002 |
| | 200 NAS1152E5P | .. SCREW | V80205 | 004 |
| | 210 NTA11551-2NDP | .. WASHER OPT TO BACW10BP2NDP | (V81205) | 004 |
| | 220 NTA11354-08CM | .. NUT | | 004 |
| | 230 S5217652520200 | .. STOP S5217652520200 I/W S5217652520202 OPT TO S5217652520202 | (VA0170) | 002 |
| | 240 S5217652200600 | .. STANCHION ASSY RPLS S5217652200695 | | 001 |
| | 250 M81934-2-20A016 | ... BUSHING | V81349 | 002 |
| | 260 S5217652220800 | ... BUSHING | | 001 |
| | 270 S5217672020200 | ... BUSHING | | 002 |
| | 280A S5217650800800 | .. STANCHION ASSY POST SB52-1034 POST SB52-1052 RPLD BY S5217650802400 | | 001 |
| | 290 M81934-2-04A008 | .. BUSHING | V81349 | 002 |
| | 295 M81934-220C016P | .. BUSHING | | 002 |
| | 300 NAS6704U18 | .. BOLT POST SB52-1034 POST SB52-1052 | V80205 | 001 |
| | 305 NAS6704U17 | .. BOLT POST SB52-1034 POST SB52-1052 POST CI98-342B | V80205 | 001 |
| | 310 NTA11551-4CU | .. WASHER POST SB52-1034 POST SB52-1052 | | 002 |

HANDRAILS INSTL-FR36-FR39,Z255

Figure 37B

52-11-20

PAGE 37B -2

| FIG | ITEM PART NUMBER | NOMENCLATURE | USAGE | QTY |
|-----|---------------------|---|----------|-----|
| 37B | 310A NTA11551-4ACU | .WASHER POST CI98-342B OPT TO BACW10BP4ACU | (V81205) | 002 |
| | 320 NTA11551-4DP | .WASHER POST SB52-1034 POST SB52-1052 POST CI98-342B OPT TO BACW10BP4DP | (V81205) | 002 |
| | 330 NTA14451-04P029 | .BUSHING POST SB52-1034 POST SB52-1052 | | 001 |
| | 335 NTA14451-04P030 | .BUSHING POST SB52-1034 POST SB52-1052 POST CI98-342B OPT TO BACB28AK04-030 | (V81205) | 001 |
| | 340 NTA11354-4CM | .NUT POST SB52-1034 POST SB52-1052 | | 002 |
| - | 350 S5217652100200 | .LINK ASSY POST SB52-1034 POST SB52-1052 POST CI98-342B | | 001 |
| | 360 S5217652120200 | ..LINK-HANDRAIL FWD | | 001 |
| | 370 S5237944120202 | ..INSERT | | 001 |
| | 380 MS21221-4K | ..ROD END | V96906 | 001 |
| | 390 NAS509-6 | ..NUT-JAM | VT0000 | 001 |
| | 400 NAS513-6 | ..WASHER | VT0000 | 001 |
| | 410 NTA11151-5K13 | ..BOLT | | 001 |
| | 420 NTA11752-5 | ..COLLAR | | 001 |
| | 425 NTA14554-04C | ..BEARING-PLAIN-SELF ALIGNING | | 001 |



SERVICE LETTER ATR42

TITLE: Doors - Passenger door - 2nd handrail opening/closing system with quick release pin, self-retaining

© ATR. All rights reserved. Confidential and proprietary document.

This document shall not be reproduced or disclosed to a third party without the written consent of ATR. This document and its content shall not be used for any purpose other than that for which it is supplied.

ATR, its logo, the distinctive ATR aircraft profiles and patented information relating to the ATR aircraft are the exclusive property of ATR and are subject to copyright. This document and all information contained herein are the sole property of ATR. No intellectual property right is granted through, or induced by, the delivery of this document or the disclosure of its content.

1. EFFECTIVITY

All ATR42 aircraft models with one of the following modifications installing a 2nd semi-automatic handrail:

- Service Bulletin No. ATR42-52-0083 or modifications No. 04019, No. 04119, No. 04240, No. 04422, No. 04766.
- Service Bulletin No. ATR42-52-0067 or modifications No. 04019, No. 04119.
- Modification No. 04422 or Service Bulletin No. ATR42-52-0072.
- Modification No. 04766 or Service Bulletin No. ATR42-52-0080.
- Modification No. 05392.

2. REASON

Some ATR aircraft experienced unlocking of passenger door 2nd handrail during boarding or deplaning.

This event is attributed to a damaged quick release pin P/N MS17990C412 or its incorrect installation.

The quick release pin has been intended to lock the sliding fitting of the stanchion to the handrail (see enclosed picture).

When the pin is engaged the 2nd handrail can be utilized. Vice versa, when the pin is removed, the handrail goes back to at rest position.

Besides, the two locking elements of quick release pin may be damaged from repeated incorrect installation or removal.

Also, the warning streamer, usually fixed to the attaching ring, was found incorrectly installed to the ring handle of pin P/N MS17990C412: in this case, if inadvertently the streamer is dragged away it can pull out the pin allowing the sliding fitting to move and the handrail to get free.

3. RECOMMENDATION

Operator crew members shall be stressed to pay attention in opening/closing the door, especially when, opening the door, the quick release pin P/N MS17990C412 is installed making sure that pressing the release button the shank is correctly engaged in the sliding fitting. This to prevent that the pin comes out from its housing and handrail get free.

Operator maintenance staffs are also recommended to pay attention that, the quick release pin and/or warning streamer are correctly installed at attaching ring and not at ring handle specifically for pin P/N MS17990C412 as for new interchangeable pin P/N MS17984C412 warning streamer installation is not linked to pin unlocking (refer to AMM (JIC) 52-11-00 OAC 10000 and to figure 1 for clarification).

SERVICE LETTER ATR42

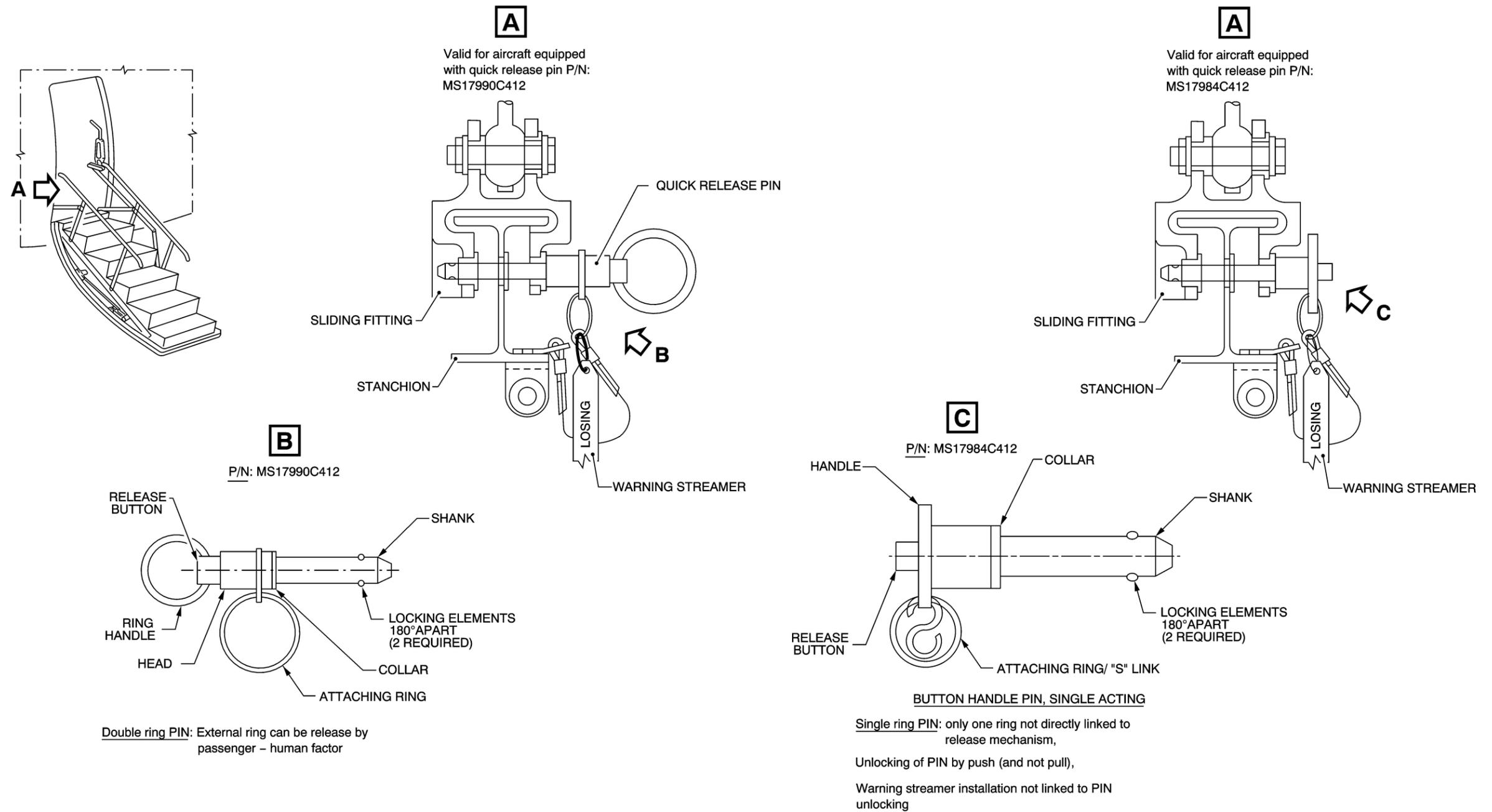


Figure 1



SERVICE LETTER ATR72

TITLE: Doors - Passenger door - 2nd handrail opening/closing system with quick release pin, self-retaining

© ATR. All rights reserved. Confidential and proprietary document.

This document shall not be reproduced or disclosed to a third party without the written consent of ATR. This document and its content shall not be used for any purpose other than that for which it is supplied.

ATR, its logo, the distinctive ATR aircraft profiles and patented information relating to the ATR aircraft are the exclusive property of ATR and are subject to copyright. This document and all information contained herein are the sole property of ATR. No intellectual property right is granted through, or induced by, the delivery of this document or the disclosure of its content.

1. EFFECTIVITY

All ATR72 aircraft models with one of the following modifications, installing a 2nd semi-automatic handrail:

- Service Bulletin No. ATR72-52-1052 or modifications No. 04019, No. 04119, No. 04240, No. 04422, No. 04766.
- Service Bulletin No. ATR72-52-1034 or modifications No. 04019, No. 04119.
- Modification No. 04422 or Service Bulletin No. ATR72-52-1040.
- Modification No. 04766 or Service Bulletin No. ATR72-52-1049.
- Modification No. 05392.

2. REASON

Some ATR aircraft experienced unlocking of passenger door 2nd handrail during boarding or deplaning.

This event is attributed to a damaged quick release pin P/N MS17990C412 or its incorrect installation.

The quick release pin has been intended to lock the sliding fitting of the stanchion to the handrail (see enclosed picture).

When the pin is engaged the 2nd handrail can be utilized. Vice versa, when the pin is removed, the handrail goes back to at rest position.

Besides, the two locking elements of quick release pin may be damaged from repeated incorrect installation or removal.

Also, the warning streamer, usually fixed to the attaching ring, was found incorrectly installed to the ring handle of pin P/N MS17990C412: in this case, if inadvertently the streamer is dragged away it can pull out the pin allowing the sliding fitting to move and the handrail to get free.

3. RECOMMENDATION

Operator crew members shall be stressed to pay attention in opening/closing the door, especially when, opening the door, the quick release pin P/N MS17990C412 is installed making sure that pressing the release button the shank is correctly engaged in the sliding fitting. This to prevent that the pin comes out from its housing and handrail get free.

Operator maintenance staffs are also recommended to pay attention that, the quick release pin and/or warning streamer are correctly installed at attaching ring and not at ring handle specifically for pin P/N MS17990C412 as for new interchangeable pin P/N MS17984C412 warning streamer installation is not linked to pin unlocking (refer to AMM (JIC) 52-11-00 OAC 10000 and figure 1 for clarification).

SERVICE LETTER ATR72

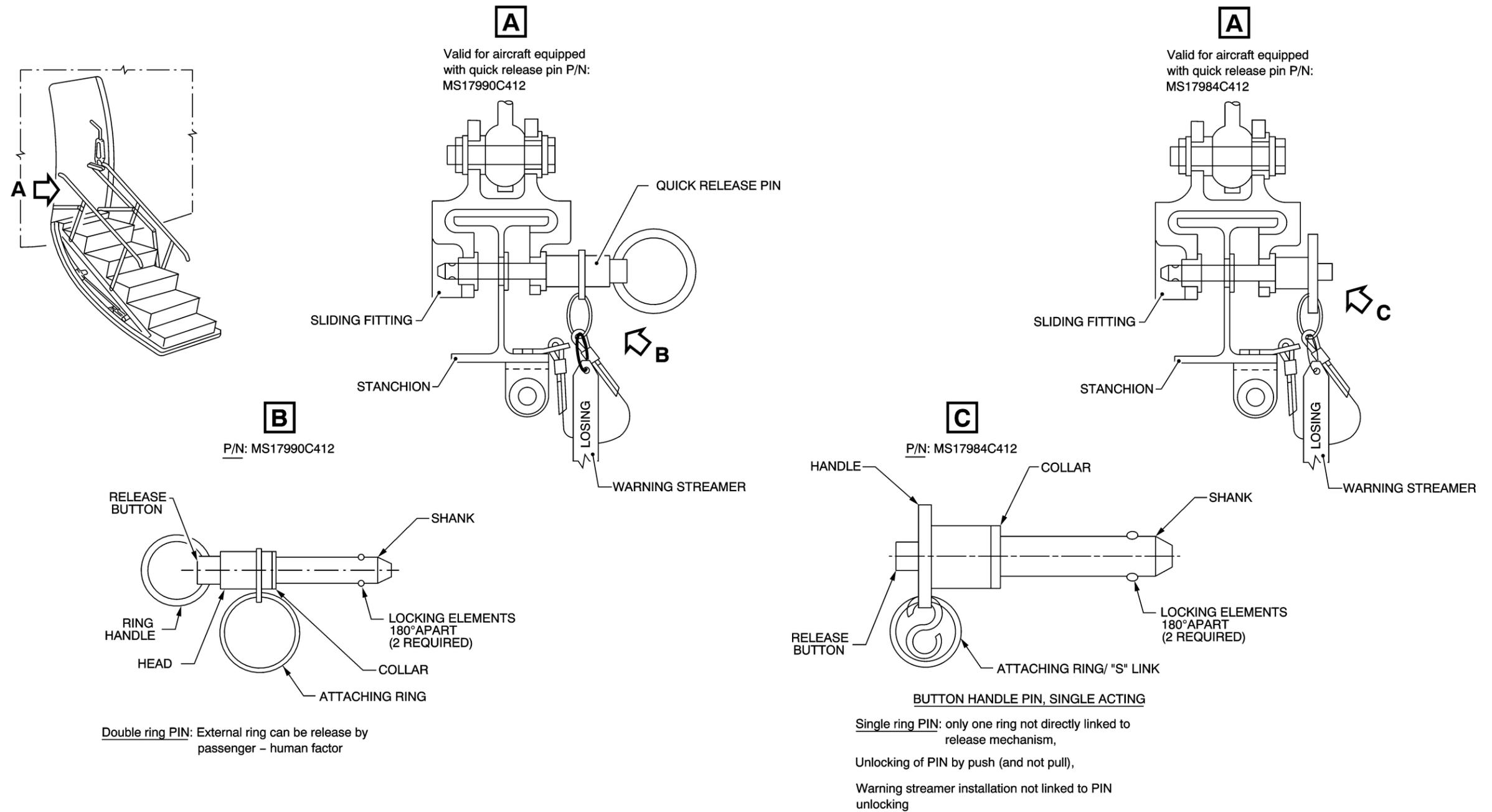


Figure 1