



CRUISER  
AIRCRAFT

No.: SB-CR-095

DATE: 2022-01-27

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# SERVICE BULLETIN

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REV.: -

DATE: -

<b>MODEL AFFECTED:</b>	PS-28 Cruiser / PS-28N Cruiser SportCruiser / PiperSport operating under EASA rules
<b>SUBJECT:</b>	Bowden controls replacement
<b>AIRCRAFT AFFECTED:</b>	All PS-28 Cruiser and PS-28N Cruiser aircraft All SportCruiser / PiperSport operating under EASA rules
<b>COMPLIANCE:</b>	According to the owner's decision

## DESCRIPTION:

This Service Bulletin contain instructions how to replace bowden controls.  
Service bulletin contains three sections:

- first part is the replacement of the **parking brake bowden control**
- second part is the replacement of the **carburetor heater bowden control**
- third part is the replacement of the **cab heater bowden control**

## REASON:

The original bowden is jammed. The new is better as it has a layer of teflon inside.

## AUTHORISATION TO PERFORM:

Part M or Part 145 Maintenance organization.

## MANPOWER:

40 min. per Bowden control.

## SPECIAL TOOLS:

Common tools for aircraft maintenance.

## WEIGHT AND BALANCE:

N/A

## ELECTRICAL LOAD DATA:

N/A

## PUBLICATIONS AFFECTED:

N/A

## MATERIAL AND COSTS:

All costs to be covered by the aircraft owner / operator.

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**FIRST PART:** Parking brake

**MATERIAL:**

ITEM No.	NOMENCLATURE	DESCRIPTION	QUANTITY
001	3800D033	Control tie rod	1 pc
002	3800D179	Parking brake rod knob	1 pc
003	3331A003	Cable tie	4pcs
004	4610A003	Loctite 243	1 pc

**ACCOMPLISHMENT INSTRUCTIONS:**

- 1) Remove the side panels of the central tunnel by removing screws. (See Fig. 1)



Fig. 1: Side panel screws

- 2) Unscrew the nut from the rear of the parking brake knob. (002) (See Fig. 2)

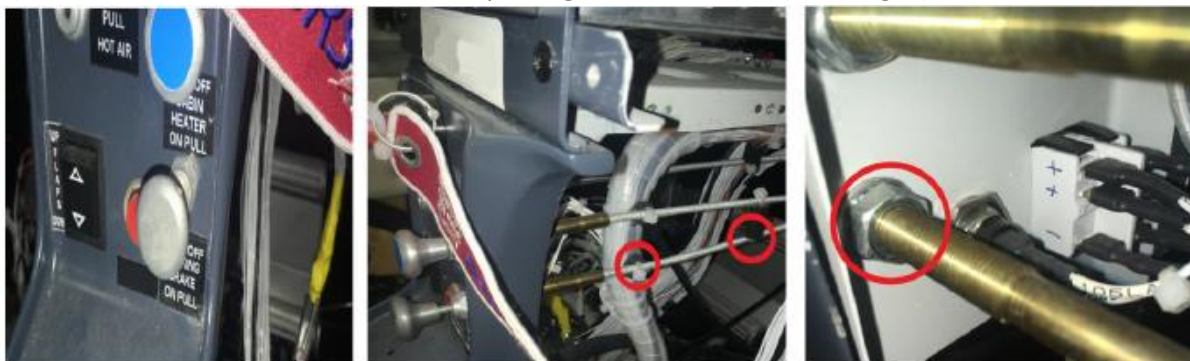


Fig. 2: Knob location

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- 3) Cut the cable ties. (003) (See Fig. 2, 3)
- 4) Loosen the screw. (See Fig. 3, pos. 1)
- 5) Unscrew the nut. (See Fig. 3, pos. 1)
- 6) Pull out the control rod. (001)



Fig. 3: Location of cable tie and brake device

NOTE: Assembly takes place in the same way as disassembly.

- 7) Insert the control rod (001) into the hole.
- 8) Glue (004) the knob (002) to the bowden thread. (See Fig. 4)



Fig. 4: Knob and bowden thread

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- 9) Tighten the nut on the back. (See Fig. 2)
- 10) Secure the control rod (001) in place. (See Fig. 2, 3)
- 11) Fasten the control rod (001) at the end with a screw (See Fig. 3, pos. 1) and secure the nut (See Fig. 3, pos. 2).
- 12) The correctly adjusted released parking brake should be in (See Fig. 3, pos. 1) and in the retracted position it should be closer to (See Fig. 3, pos.2).
- 13) Screw back the sides of the central tunnel. (See Fig. 1)
- 14) Perform a function check.



Fig. 5: Old vs new knob

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**SECOND PART:** Carburetor heater

**MATERIAL:**

ITEM No.	NOMENCLATURE	DESCRIPTION	QUANTITY
005	3800D033	Control tie rod	1 pc
006	3800D035	Carburetor heater tie rod knob	1 pc
007	3331A003	Cable tie	10 pcs
008	4610A003	Loctite 243	1 pc

**ACCOMPLISHMENT INSTRUCTIONS:**

- 1) Remove the side panels of the central tunnel by removing screws. (See Fig. 6)



Fig.6: Side panel screws

2) Unscrew the nut from the rear of the carburetor heater knob. (006) (See Fig. 7)



Fig. 7: Position carburetor knob and nut

3) Cut the cable ties. (007) (See Fig. 8, 9, 10)



Fig. 8: Position of cable ties

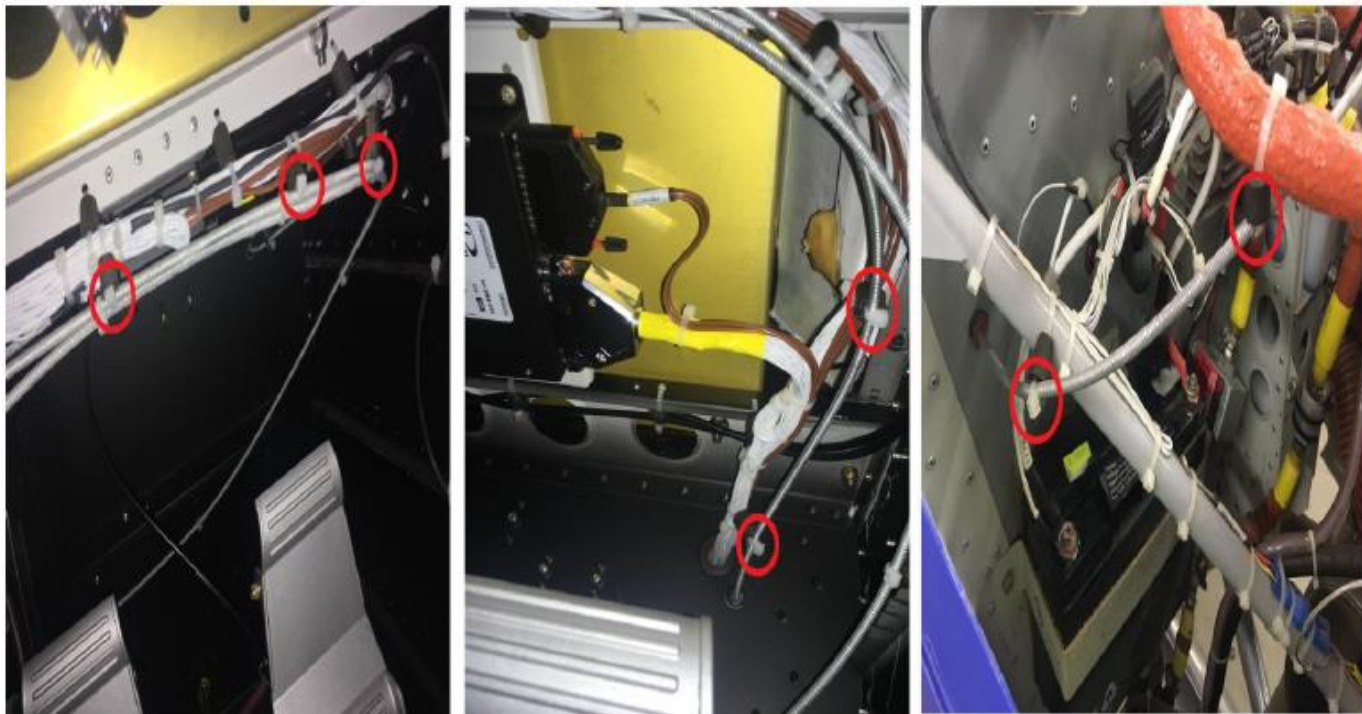


Fig. 9: Position of cable ties

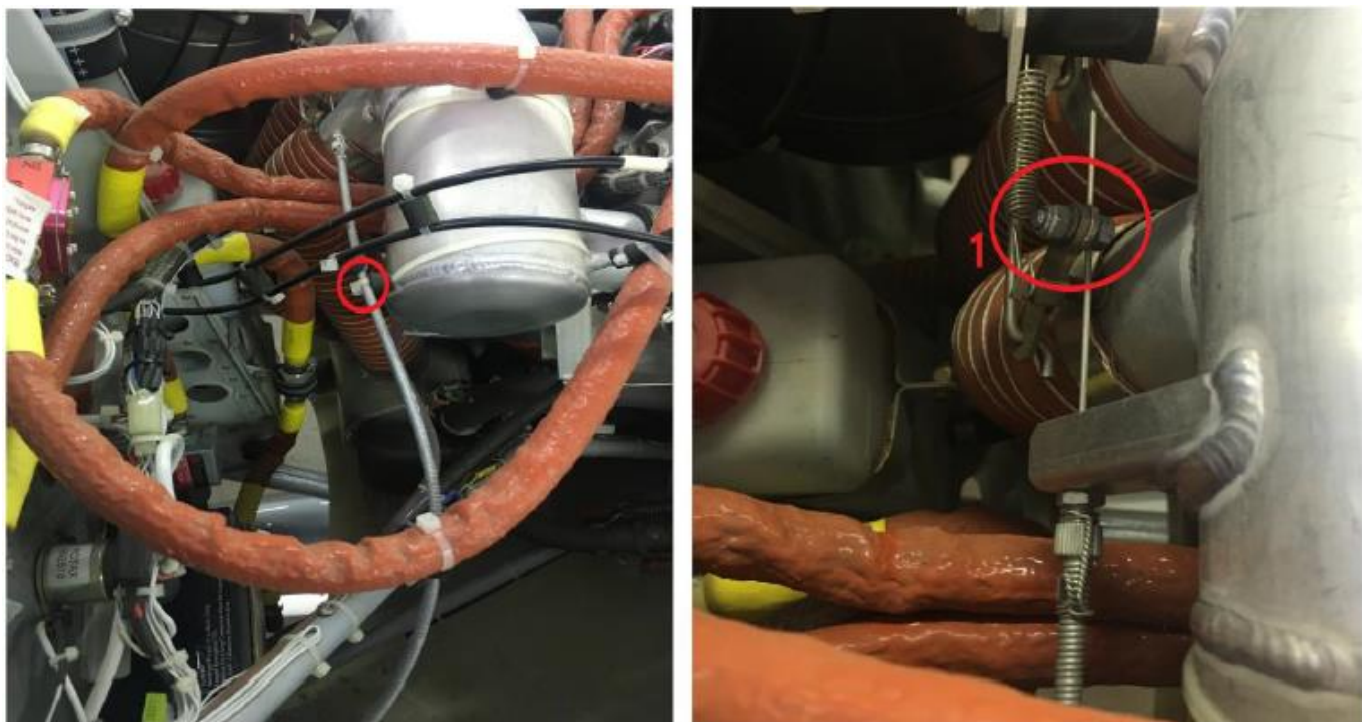


Fig. 10: Position of cable ties and locking screw

- 4) Loosen the screw. (See Fig. 10, pos. 1)
- 5) Pull out the control rod. (005)

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NOTE: Assembly takes place in the same way as disassembly.

- 6) Insert the control rod (005) into the hole.
- 7) Glue (008) the knob (006) to the bowden thread. (See Fig. 11)



Fig. 11: Knob and bowden thread

- 8) Tighten the nut on the back. (See Fig. 7)
- 9) Secure the control rod (005) in place. (See Fig. 8, 9, 10)
- 10) Fasten the control rod at the end with a screw. (See Fig. 10, pos. 1)
- 11) Screw back the sides of the central tunnel. (See Fig. 6)
- 12) Perform a function check.



Fig. 12: Old vs new knob



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**THIRD PART:** cab heater option 1

**MATERIAL:**

ITEM No.	NOMENCLATURE	DESCRIPTION	QUANTITY
009	3800D033	Control tie rod	1 pc
010	3800D178	Cab heater tie rod knob	1 pc
011	3331A003	Cable tie	7 pcs
012	4610A003	Loctite 243	1 pc

**ACCOMPLISHMENT INSTRUCTIONS:**

- 1) Remove the side panels of the central tunnel by removing screws. (See Fig. 13)



Fig. 13: Side panel screws

2) Unscrew the nut from the rear of the cab heater knob. (010) (See Fig. 14)

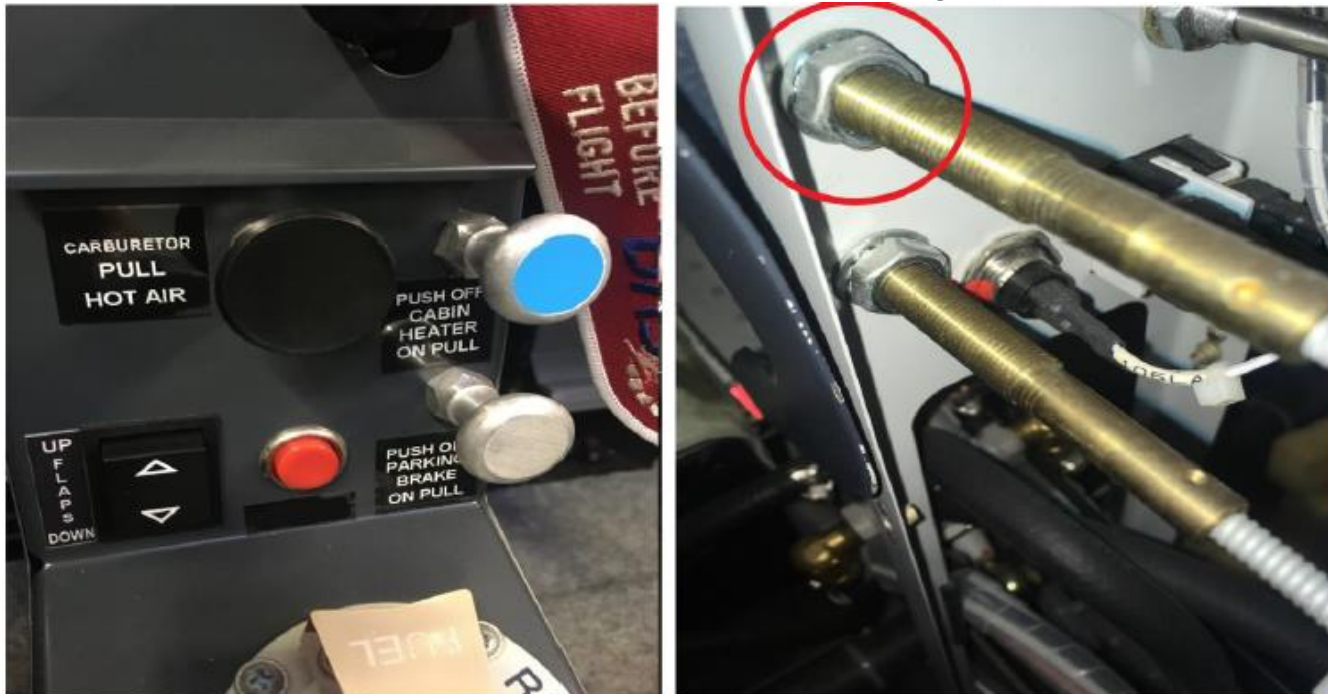


Fig. 14: Position cabin heater knob and nut

3) Cut the cable ties. (011) (See Fig. 15)

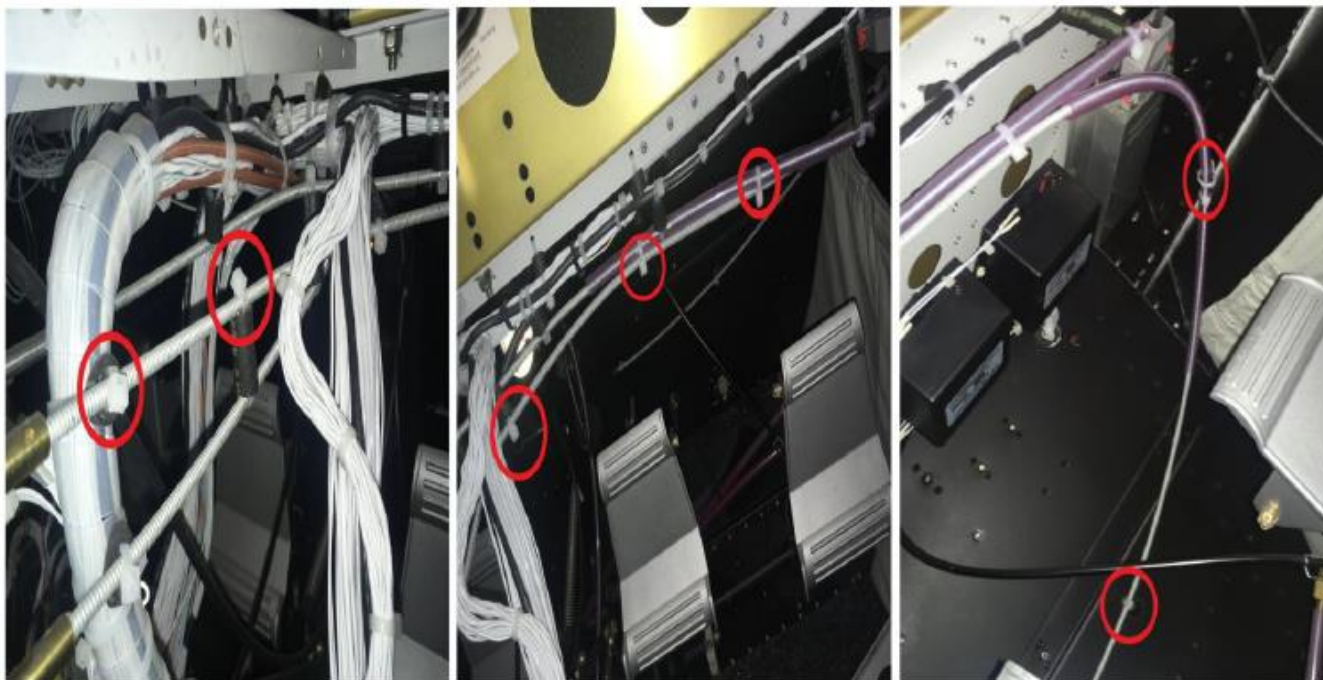


Fig. 15: Position of cable ties

4) Pull the wire out of the hole. (See Fig. 16, pos. 2)

5) To loosen the bowden nut. (See Fig. 16, pos. 1)

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Fig. 16: Position of flap and bowden nut

NOTE: Assembly takes place in the same way as disassembly.

- 6) Insert the control rod (009) into the hole.
- 7) Glue (012) the knob (010) to the bowden thread. (See Fig. 17)



Fig. 17: Knob and bowden thread

- 8) Tighten the nut on the back. (See Fig. 14)
- 9) Secure the control rod (009) in place. (See Fig. 15)
- 10) secure the control rod (009) at the end by bending the wire into the socket at the flap. (See Fig. 16, pos. 2)
- 11) Tighten the bowden nut. (See Fig. 16, pos. 1)
- 12) Screw back the sides of the central tunnel. (See Fig. 13)
- 13) Perform a function check.

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Fig. 18: New vs old knob

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**THIRD PART:** cab heater option 2

**MATERIAL:**

ITEM No.	NOMENCLATURE	DESCRIPTION	QUANTITY
013	3800D033	Control tie rod	1 pc
014	3800D178	Cab heater tie rod knob	1 pc
015	3331A003	Cable tie	6 pcs
016	4610A003	Loctite 243	1 pc

**ACCOMPLISHMENT INSTRUCTIONS:**

- 1) Remove the side panels of the central tunnel by removing screws, see. (See Fig. 19)



Fig.19: Side panel screws

2) Unscrew the nut from the rear of the cab heater knob. (014) (See Fig. 20)



Fig. 20: Position cabin heater knob and nut

3) Cut the cable ties. (015) (See Fig. 21, 22)

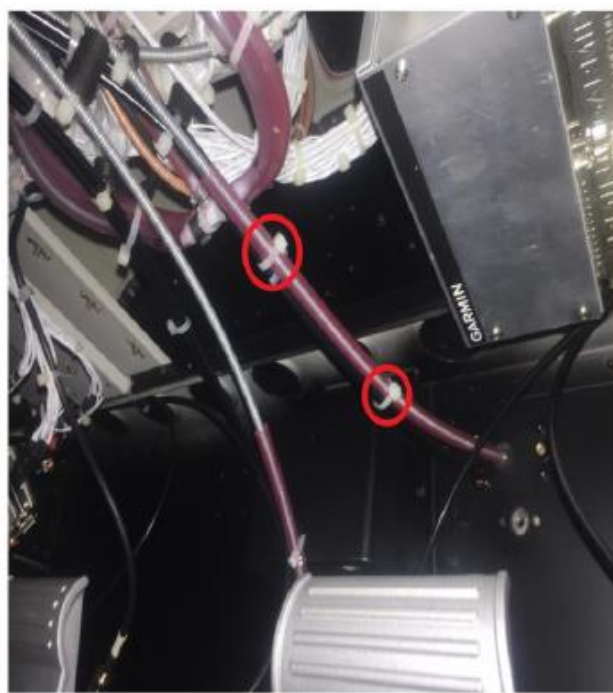


Fig. 21: Position of cable ties



Fig. 22: Position of cable ties

4) Loosen the screw. (See Fig. 23, pos. 2)

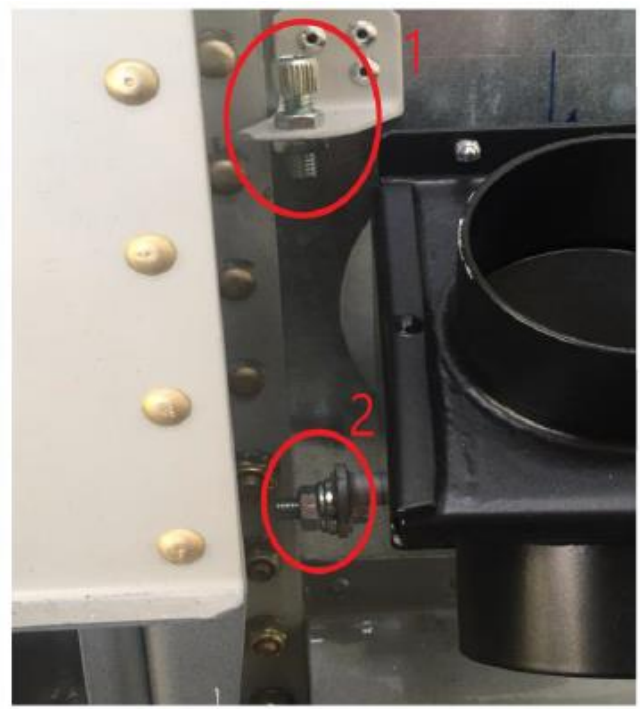


Fig. 23: Position of locking screw

5) Pull out the control rod. (013)



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NOTE: Assembly takes place in the same way as disassembly.

- 6) Insert the control rod (013) into the hole.
- 7) Glue the knob (014) to the bowden thread. (See Fig. 24)



Fig. 24: Knob and bowden thread

- 8) Tighten the nut on the back. (See Fig. 20)
- 9) Secure the control rod (013) in place. (See Fig. 21, 22)
- 10) Fasten the control rod (013) at the end with a screw. (See Fig. 23, pos. 2)
- 11) Screw back the sides of the central tunnel. (See Fig. 19)
- 12) Perform a function check.

**APPROVAL:**

This Service Bulletin has been approved by:

<b>TITLE:</b>	Head of Design Organisation	Airworthiness Manager
<b>NAME:</b>	David Bilík	Jan Pejchar
<b>HANDWRITTEN SIGNATURE:</b>		