

CAP Aviation 9, rue de l'Aviation 21121 DAROIS - France Tel +33 380 35 65 10 Fax +33 380 35 65 15 www.capaviation.com	<b>S E R V I C E B U L L E T I N</b>	
<b>NUMBER</b>	<b>TITLE</b>	<b>ATA SYSTEM</b>
000705	Pulleys	27

## 1. PLANNING INFORMATION

### 1.1 Approval

**NOTA:** This document is a courtesy translation of its original French version. Whereas the original French version of the information and instructions is approved, this *translation* is *not* approved.  
As a consequence, the approval mentions below are to be understood as applicable to the *original French version* of this SB.

This Service Bulletin corresponds to the MINOR change Nr 000705 which has been approved under the privileges of the Design Organisation Agreement DGAC Nr° F.JA.06.

The technical information contained in this document is approved under the privileges of the Design Organisation Agreement Nr° F.JA.06.

Revision	Date	Description	Airworthiness Office Manager	Head of Design Organisation
			Recommendation for approval	Approval
0	20/10/00	Original issue		

### 1.2 Effectivity

Aircraft : type	CAP232	CAP10B	CAP231EX	CAP231	CAP21	CAP20L
Serial Nr	001-999	001-999	001-999	001-999	001-999	001-999

Spare parts with Serial Nr	N/A
Serial Nr	N/A

### 1.2.1 For information :

The change corresponding to this Service Bulletin has been implemented during serial manufacturing:

<b>Aircraft : Type</b>	CAP232
<b>Serial Nr</b>	031-999

<b>Spare parts with Serial Nr</b>	N/A
<b>Serial Nr</b>	N/A

### 1.3 Implementation

	SERVICE BULLETIN	DELAI D'APPLICATION
	Optional	
X	Recommended	For the CAP232, CAP231EX, CAP231, CAP21 and CAP20L : In case of replacement of pulley. For the CAP10B : In case of replacement of pulley (ref CAP10 50-25-00) and if old definition is out of stock.
	Mandatory	

### 1.4 Reason

Improve the lead times.

Inform the users about the new references of the pulleys, supports and anti-derailing stops.

### 1.5 Description

For CAP232, CAP231EX, CAP231, CAP21 and CAP20L :

In case of replacement of pulley, installation of the complete kit is mandatory; parts are not interchangeable.

For CAP10B : In case of replacement of pulley (ref CAP10 50-25-00), installation of the complete kit is mandatory only if old definition is out of stock.

### 1.6 Manpower

The instructions contained in this Service Bulletin can be performed only by an approved workshop or maintenance unit.

The lead time necessary to implement the modification is evaluated to about:

- For CAP10B :
  - Pitch control: one hour for one person
  - Aileron control: three hours for one person
  - Control of deflections: 15 minutes for two person for one control surface
- For CAP232, CAP231EX, CAP231, CAP21 and CAP20L :
  - Rudder control: two hours for one person

### 1.7 Material

The new and modified parts make up the material, and are mentioned in the chapter 3 of this Service Bulletin.

For civil customers, spare parts are to be supplied at ASCO Aviation Service Centre (Tel : +33 380 35 61 98, Fax : +33 380 35 60 58).



## 2. ACCOMPLISHMENT INSTRUCTIONS

### CAP10 :

#### PITCH CONTROL :

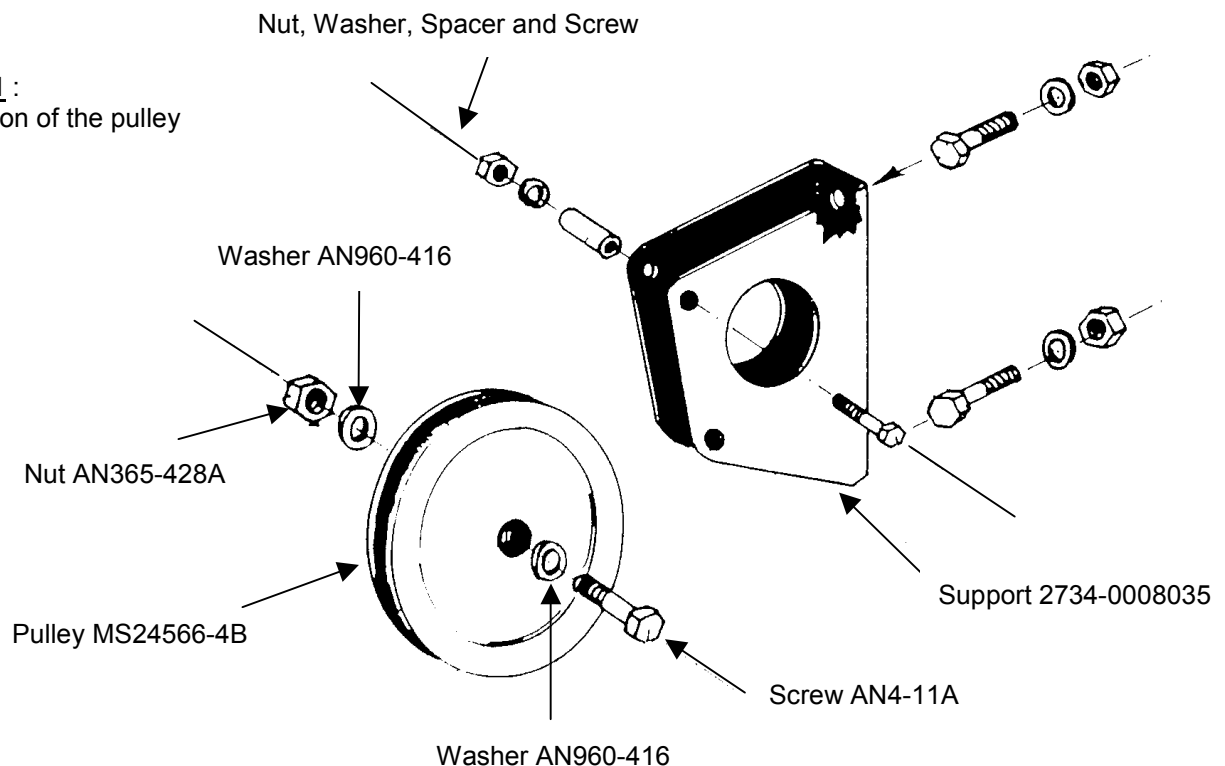
### 2.1 Removal operations

- A. Access to pulley
  1. For wooden domes: remove fairing on tail plane
  2. For plastic domes: remove dome fuselage aft trap
- B. Put elevator in neutral position until cable is not too tight

### 2.2 Change operations

- A. Remove holding nut, washer, screw and spacer to free cable from support
- B. Remove support and pulley
- C. Remove pulley from support
- D. Attach new pulley (ref MS24566-4B) on new support (ref 2734-0008035) (figure 1)
  1. Install screw (ref AN4-11A) with a washer (ref AN960-416)
  2. Install nut (ref AN365-428A) with a washer (ref AN960-416)
- E. Install new support and pulley
- F. Install cable correctly in pulley
- G. Install spacer, screw, washer and nut on support to hold cable in position

**Figure 1 :**  
Installation of the pulley



## 2.3 Installation operations

- A. For wooden domes: install fairing on tail plane
- B. For plastic domes: install trap of dome fuselage aft

## 2.4 Controls / tests

- A. Verification of cable load
  - 1. Remove large inspection door under fuselage
  - 2. Verify cable load in accordance with updated service instruction 93-01
  - 3. Install large inspection door under fuselage
- B. Control of elevator deflection in accordance with updated service instruction 93-01

### AILERON CONTROL :

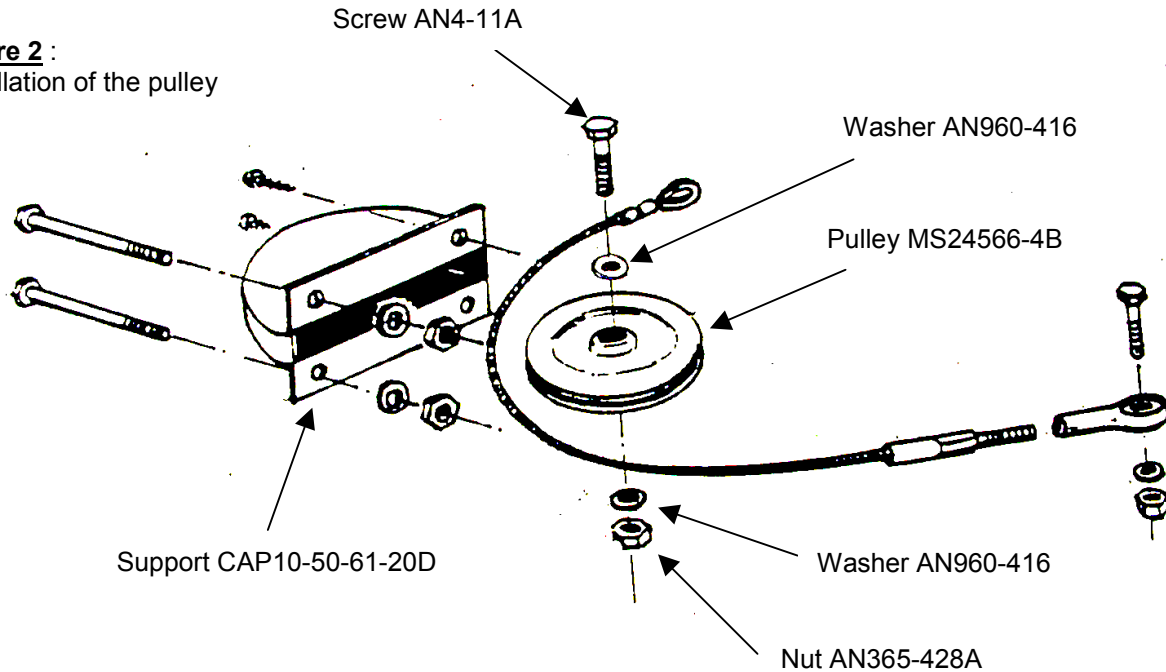
## 2.5 Disassembly operations

- A. Remove seats
- B. Remove aisle
- C. Remove control sticks
- D. Remove control stick root fairing
- E. Remove seat tracks
- F. Remove floor
- G. Remove cable at control stick root-level

## 2.6 Change operations

- A. Replacement of first pulley
  - 1. Remove support
  - 2. Remove pulley
  - 3. Install new pulley (ref MS24566-4B) and new support (ref CAP10-50-61-20D) (figure 2)
    - a) Set new pulley on new support making sure that cable is between pulley and support
    - b) Install new pulley on new support
      - i. Install screw (ref AN4-11A) with a washer (ref AN960-416)
      - ii. Install nut (ref AN365-428A) with a washer (ref AN960-416)
    - c) Install new support
- B. Repeat process for second pulley

**Figure 2 :**  
Installation of the pulley



## 2.7 Assembly operations

- A. Install cable at control stick root-level

## 2.8 Controls / tests

- A. Verify the cable load in accordance with updated service instruction 93-01

## 2.9 Assembly operations

- A. Install floor
- B. Install seat tracks
- C. Install root of control stick fairing
- D. Install control sticks
- E. Install aisle
- F. Install seat

## 2.10 Controls / tests

- A. Control of aileron deflection in accordance with updated service instruction 93-01

## CAP232, CAP231EX, CAP231, CAP21 and CAP20L :

### RUDDER CONTROL :

#### **2.11 Removal operations**

A. Remove aft access opening of fuselage

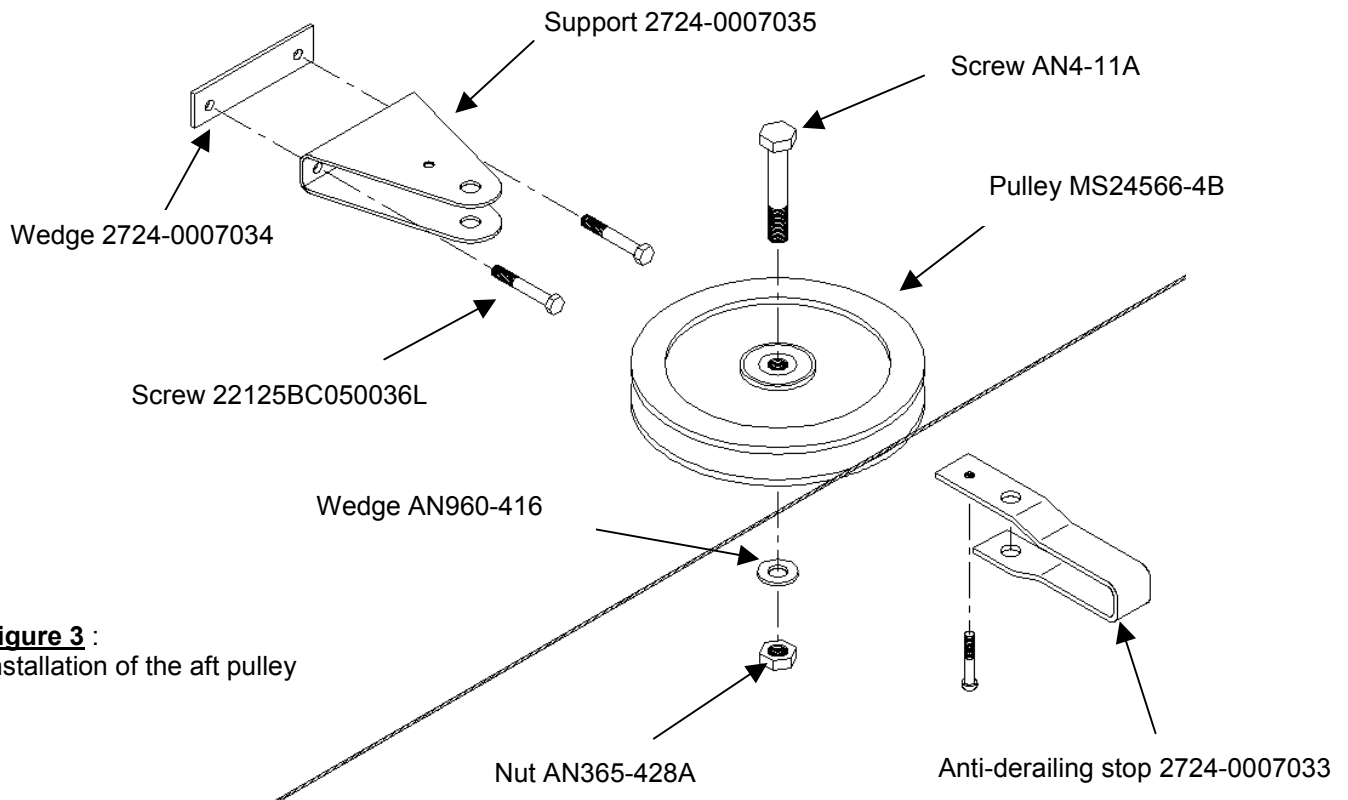
#### **2.12 Disassembly operations**

A. Remove seat

#### **2.13 Change operations**

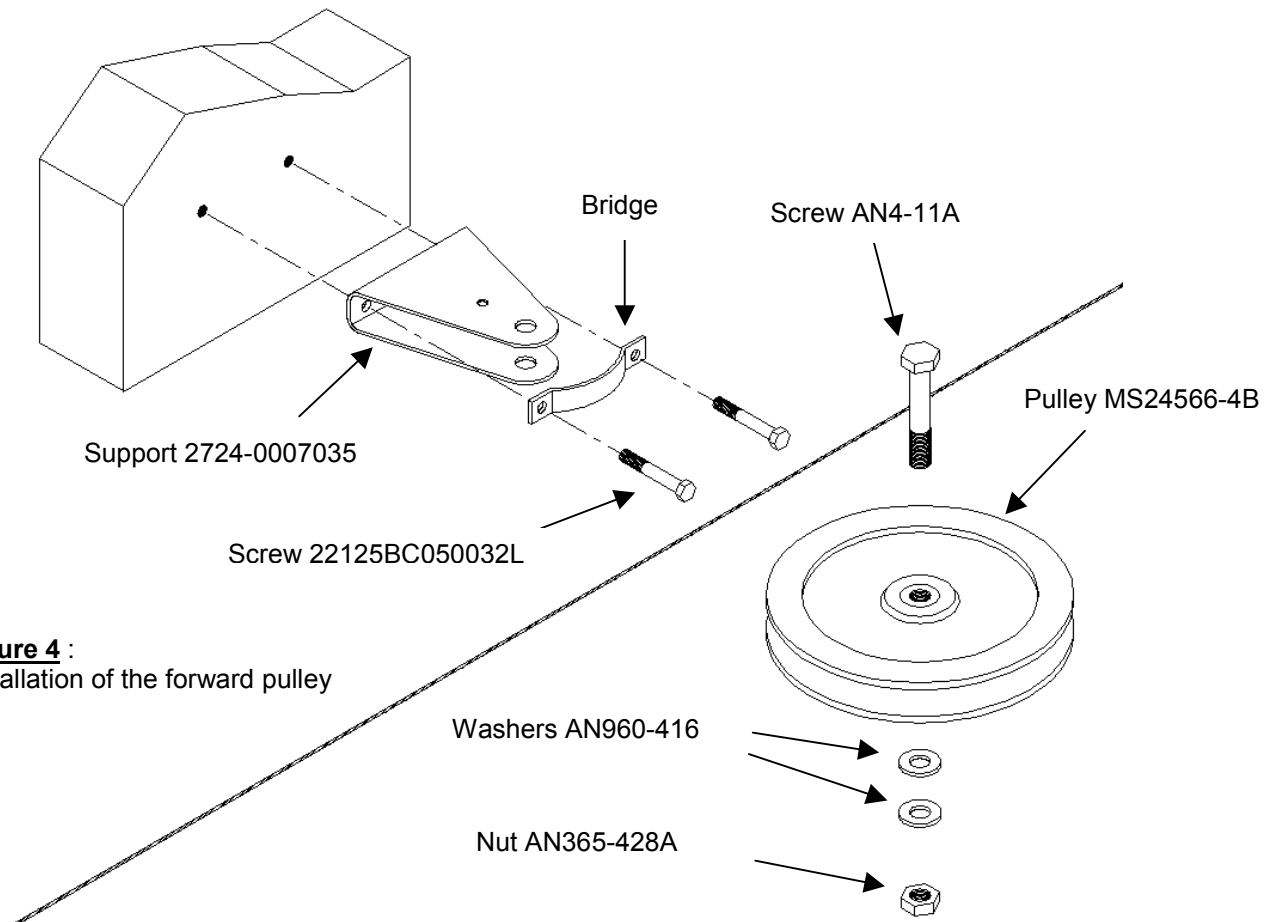
A. Installation of aft pulley (figure 3)

1. Remove pulley
2. Remove support and anti-derailing stop
3. Rivet new anti-derailing stop (ref 2724-0007033) on new support (ref 2724-0007035)
4. Put cable between support and anti-derailing stop
5. Install wedge (ref 2724-0007034) and new support (ref 2724-0007035) fitted with new anti-derailing stop (ref 2724-0007033) with the two screws (ref 22125BC050036L)
6. Install new pulley (ref MS24566-4B)
  - a) Install and align pulley axis and new support making sure that cable is correctly tight between pulley and anti-derailing stop
  - b) Install cable correctly in pulley gorge
  - c) Install screw (ref AN4-11A)
  - d) Install washer (ref AN960-416) and nut (ref AN365-428A)



**Figure 3 :**  
Installation of the aft pulley

- B. Installation of forward pulley (figure 4)
1. Remove pulley
  2. Remove support and bridge
  3. Install new support and bridge
  4. Install new pulley making sure that cable is correctly put between bridge and pulley
    - a) Install screw (ref AN4-11A)
    - b) Install two washers (ref AN960-416) and nut (ref AN365-428A)
- C. Repeat process for aft and forward pulleys on other side



**Figure 4 :**  
Installation of the forward pulley

## 2.14 Controls / tests

- A. Make sure that rudder pedals and rudder are in neutral position at the same time. If not, tighten cable to do so.

## 2.15 Assembly operations

- A. Remove seat

## 2.16 Installation operations

- A. Remove aft access opening of the fuselage

### 3. MATERIAL INFORMATION

For the CAP232, CAP231EX, CAP231, CAP21 and CAP20L :

New P/N.	Quantity	Key word	Old P/N.	Instructions
MS24566-4B	4	Pulley	CAP230-50-42-00	Old P/N to be discarded
2724-0007035	4	Support	CAP230-50-40-01	Old P/N to be discarded
2724-0007033	2	Anti-derailing stop	CAP230-50-41-01	Old P/N to be discarded
AN4-11A	2	Screw	22201BC080016L	Old P/N to be discarded
AN4-11A	2	Screw	22201BC080018L	Old P/N to be discarded
AN960-416	6	Washer plat	23111AG080L	Old P/N to be discarded
AN365-428A	4	Nut self locking	22542K080	Old P/N to be discarded
2724-0007034	2	Wedge		New piece
22125BC050036L	4	Screw	22125BC050032L	Old P/N to be discarded
MS24566-4B	4	Pulley	CAP21-50-42-00	Old P/N to be discarded
2724-0007035	4	Support	CAP21-50-40-01	Old P/N to be discarded
2724-0007033	2	Anti-derailing stop	CAP21-50-41-01	Old P/N to be discarded
MS24566-4B	4	Pulley	CAP20L-50-25-00	Old P/N to be discarded
2724-0007035	4	Support	CAP20L-50-29-01A	Old P/N to be discarded
2724-0007033	2	Anti-derailing stop	CAP20L-50-29-11A	Old P/N to be discarded
<i>For current prices, please contact ASCO Aviation Service Center.</i>				

For the CAP10B :

New P/N.	Quantity	Key word	Old P/N.	Instructions
MS24566-4B	3	Pulley	CAP10-50-25-00	Old P/N to be discarded
2724-0008035	1	Support	CAP10-50-03-01B	Old P/N to be discarded
CAP10-50-61-20D	2	Support	CAP10-50-61-20C	Old P/N to be discarded
AN4-11A	3	Screw	L22201-80-14BCL	Old P/N to be discarded
AN960-416	6	Washer flat	L23111-80DGA et L23111-80AGL	Old P/N to be discarded
AN365-428A	3	Nut self locking	8TA10BE	Old P/N to be discarded
<i>For current prices, please contact ASCO Aviation Service Center.</i>				