

Temporary Maintenance Instruction

TMI139-556

Servoactuator and Control Rod Installation - Maintenance Procedures

All AW139 Helicopters

*The technical content of this document is approved under the authority of DOA nr. EASA.21J.005.
The present TMI will be evaluated for its introduction in the standard set of Technical Publication.
If no further notice is received, the present document expires on: 10th June 2023*

2022-06-10

Introduction

This TMI provides the update to Servo Actuator and Control Rod Installation data modules.

All the information reported in the subsequent pages will be embodied within the IETP revision 41 Data Modules:

DMC	DM Title	Annex N°
<i>39-A-67-13-05-00A-720A-A</i>	<i>Control rod M3 - Install procedure</i>	<i>ANNEX 1</i>
<i>39-A-67-13-08-00A-720A-A</i>	<i>Control rod M8 - Install procedure</i>	<i>ANNEX 2</i>
<i>39-A-67-13-13-00A-720A-A</i>	<i>Control rod M6 - Install procedure</i>	<i>ANNEX 3</i>
<i>39-A-67-31-01-00A-720A-A</i>	<i>Number 1 servoactuator - Install procedure</i>	<i>ANNEX 4</i>
<i>39-A-67-31-02-00A-720A-A</i>	<i>Number 2 servoactuator - Install procedure</i>	<i>ANNEX 5</i>
<i>39-A-67-31-03-00A-720A-A</i>	<i>Number 3 servoactuator - Install procedure</i>	<i>ANNEX 6</i>

Servoactuator and Control Rod Installation - Maintenance Procedures

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Control rod M3 - Install procedure

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39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-42-00-00A-510A-A	External hydraulic power - Disconnect procedure
39-A-20-00-00-00A-711A-A	Threaded fasteners - Tighten procedure
39-A-60-80-00-02A-271A-A	Control rods - Adjust
39-A-60-80-00-02A-91GA-A	Control rods - Location of rigging pins

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
The access door/panels 473AL, 140AT and 140BT must be opened/removed	39-A-06-41-00-00A-010A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Tool kit, flight control adjustment	GF-66-00	1
Warning flag	GF-66-09	1

Supplies

Table 6 Supplies

Nomenclature	
No Supplies	

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Control rod M3	67-13-00-01 -012	AR
Cotter pin	67-13-00-01 -017	2

Table 7 Spares

Nomenclature	Identification No.	Qty
Washer	67-13-00-01 -039	AR
Washer	67-13-00-01 -042	AR

Safety Conditions

WARNING

This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

- 1 Make sure that the [Warning flag \(GF-66-09\)](#) is in position in the cockpit.
- 2 Put the control rod M3 (7, [Figure 1](#)) in position between the bellcrank M2-M3 (11) and the lever (3) of the Number 2 servoactuator.

Note

If necessary, you can install two more [Washer \(67-13-00-01 -039\)](#) (8) adjacent to the nut (1).

- 3 Install these parts that attach the control rod M3 (7) to the bellcrank M2-M3 (11):
 - The countersunk washer (12)
 - The bolt ([13](#)) ([VP](#))
 - The washer(s) (8)
 - The nut (10).

Make sure that the countersunk side of the washer (12) is adjacent to the head of the bolt ([13](#)). ([VP](#))

- 4 Tighten the nut (10) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). ([VP](#))
- 5 Install the new [Cotter pin \(67-13-00-01 -017\)](#) ([9](#)) ([VP](#)).

Note

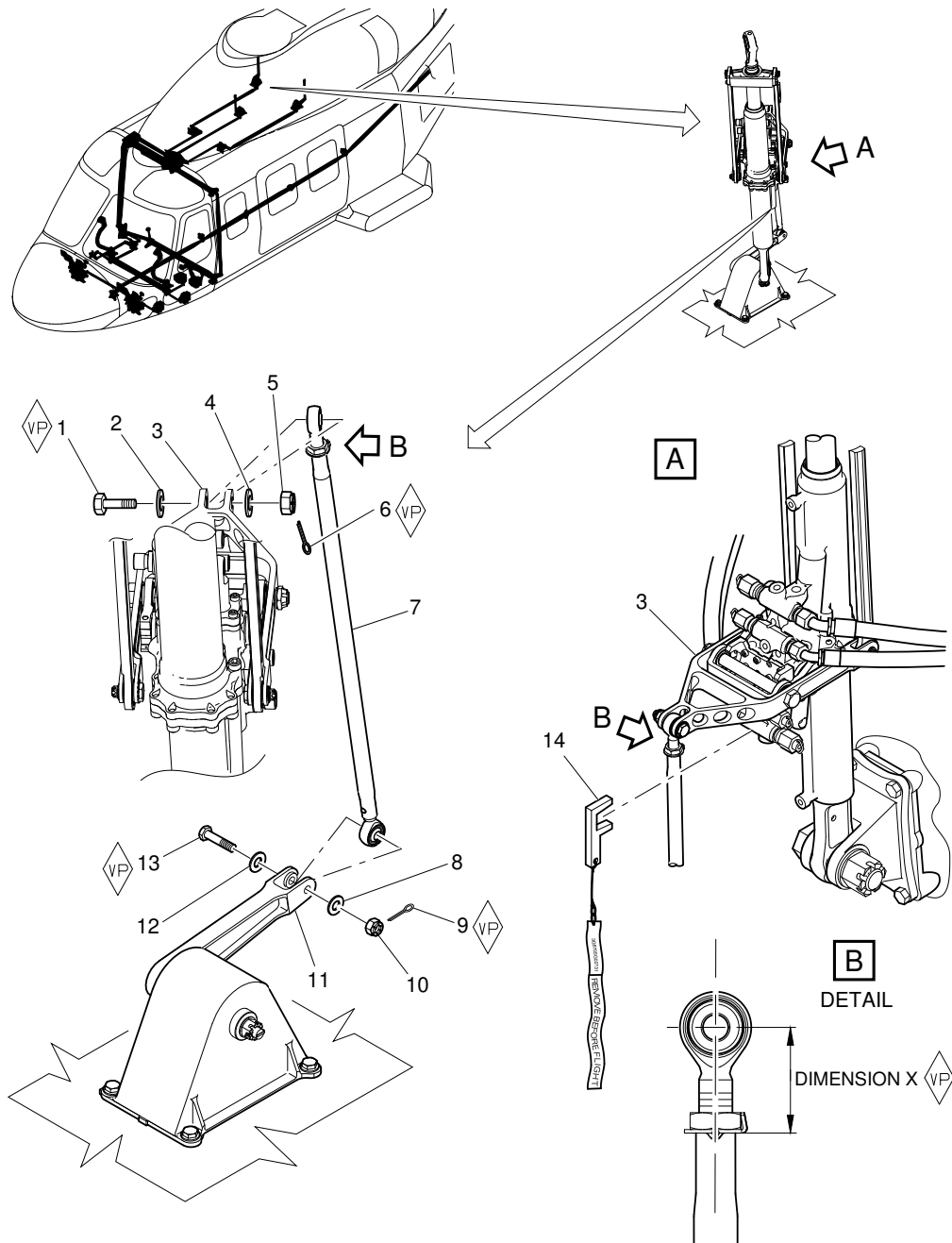
The subsequent step is applicable only if you install the removed control rod M3. If you replaced the control rod M3 with a new item, go to the [step 7](#).

- 6 Measure the [Dimension X](#) on the control rod M3 (7) to make sure that the value recorded at removal had no changes. ([VP](#))

- 7 If you installed a new [Control rod M3 \(67-13-00-01 -012\)](#) (7), adjust its length as necessary to connect it to the lever (3). To do this, refer to [39-A-60-80-00-02A-271A-A](#).
- 8 Put the eye end of the control rod M3 (7) in position on the lever (3) of the Number 2 servoactuator.
- Note**
If necessary, you can install two more [Washer \(67-13-00-01 -042\)](#) (4) adjacent to the nut (5).
- 9 Install these parts that attach the control rod M3 (7) to the lever (3):
- The countersunk washer (2)
 - The bolt (1) (VP)
 - The washer(s) (4)
 - The nut (5).
- Make sure that the countersunk side of the washer (2) is adjacent to the head of the bolt (1). (VP)
- 10 Tighten the nut (5) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). (VP)
- 11 Install the new [Cotter pin \(67-13-00-01 -017\)](#) (6) (VP).
- 12 Remove the rigging fork (14) from the lever (3) of the Number 2 servoactuator.
- 13 Adjust the operating pressure of the hydraulic test stand to 50 bar (725 lbf/in²).
- 14 Operate the hydraulic test stand and pressurize the Number 1 main-hydraulic system.
- 15 Get access to mixing unit in the cabin and remove the rigging pins from:
- The rear arm link and the mixing unit support
 - The mixing unit slide and the longitudinal-mixing unit lever
 - The longitudinal-mixing unit lever and the lateral-mixing unit lever.
- For rigging pins location refer to [39-A-60-80-00-02A-91GA-A](#).
- 16 Decrease the external hydraulic pressure to zero and set the external hydraulic power to off.
- 17 Disconnect the external hydraulic power from the Number 1 main-hydraulic system. Refer to [39-A-12-42-00-00A-510A-A](#).
- 18 Remove the warning flag from the cockpit.

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close/install the access door/panels 473AL, 140AT and 140BT. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the right side of the fuselage.



ICN-39-A-671305-G-00001-08304-A-003-01

Figure 1 Control rod M3 - Install procedure

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Control rod M8 - Install procedure

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Table 1 References

Data Module	Title
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-42-00-00A-510A-A	External hydraulic power - Disconnect procedure
39-A-20-00-00-00A-711A-A	Threaded fasteners - Tighten procedure
39-A-60-80-00-02A-271A-A	Control rods - Adjust
39-A-60-80-00-02A-91GA-A	Control rods - Location of rigging pins

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
The access door/panels 473AL, 140AT and 140BT must be opened/removed	39-A-06-41-00-00A-010A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Tool kit, flight control adjustment	GF-66-00	1
Warning flag	GF-66-09	1

Supplies

Table 6 Supplies

Nomenclature	
No Supplies	

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Control rod M8	67-13-00-01 -036	AR
Cotter pin	67-13-00-01 -017	2

Table 7 Spares

Nomenclature	Identification No.	Qty
Washer	67-13-00-01 -039	AR
Washer	67-13-00-01 -042	AR

Safety Conditions

WARNING

This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

- 1 Make sure that the [Warning flag \(GF-66-09\)](#) is in position in the cockpit.
- 2 Put the control rod M8 (7, [Figure 1](#)) in position between the bellcrank M7-M8 (8) and the lever (4) of the Number 1 servoactuator.

Note

If necessary, you can install two more [Washer \(67-13-00-01 -039\)](#) (11) adjacent to the nut (12).

- 3 Install these parts that attach the control rod M8 (7) to the bellcrank M7-M8 (8):
 - The countersunk washer (10)
 - The bolt (9) (VP)
 - The washer(s) (11)
 - The nut (12).

Make sure that the countersunk side of the washer (10) is adjacent to the head of the bolt (9). (VP)

- 4 Tighten the nut (12) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). (VP)
- 5 Install the new [Cotter pin \(67-13-00-01 -017\)](#) (13) (VP).

Note

The subsequent step is applicable only if you install the removed control rod M8. If you replaced the control rod M8 with a new item, go to the [step 7](#).

- 6 Measure the Dimension X on the control rod M8 (7) to make sure that the value recorded at removal had no changes. (VP)

- 7 If you installed a new [Control rod M8 \(67-13-00-01 -036\)](#) (7), adjust its length as necessary to connect it to the lever (4). To do this, refer to [39-A-60-80-00-02A-271A-A](#).

Note

If necessary, you can install two more [Washer \(67-13-00-01 -042\)](#) (3) adjacent to the nut (1).

- 8 Install these parts that attach the control rod M8 (7) to the lever (4) of the Number 1 servoactuator:
- The countersunk washer (6)
 - The bolt (5) (VP)
 - The washer(s) (3)
 - The nut (1).

Make sure that the countersunk side of the washer (6) is adjacent to the head of the bolt (5). (VP)

- 9 Tighten the nut (1) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). (VP)

- 10 Install the new [Cotter pin \(67-13-00-01 -017\)](#) (2). (VP)

- 11 Remove the rigging fork (14) from the lever (4) of the Number 1 servoactuator.

- 12 Adjust the operating pressure of the hydraulic test stand to 50 bar (725 lbf/in²).

- 13 Operate the hydraulic test stand and pressurize the Number 1 main-hydraulic system.

- 14 Get access to mixing unit in the cabin and remove the rigging pins from:

- The rear arm link and the mixing unit support
- The mixing unit slide and the longitudinal-mixing unit lever
- The longitudinal-mixing unit lever and the lateral-mixing unit lever.

For rigging pins location refer to [39-A-60-80-00-02A-91GA-A](#).

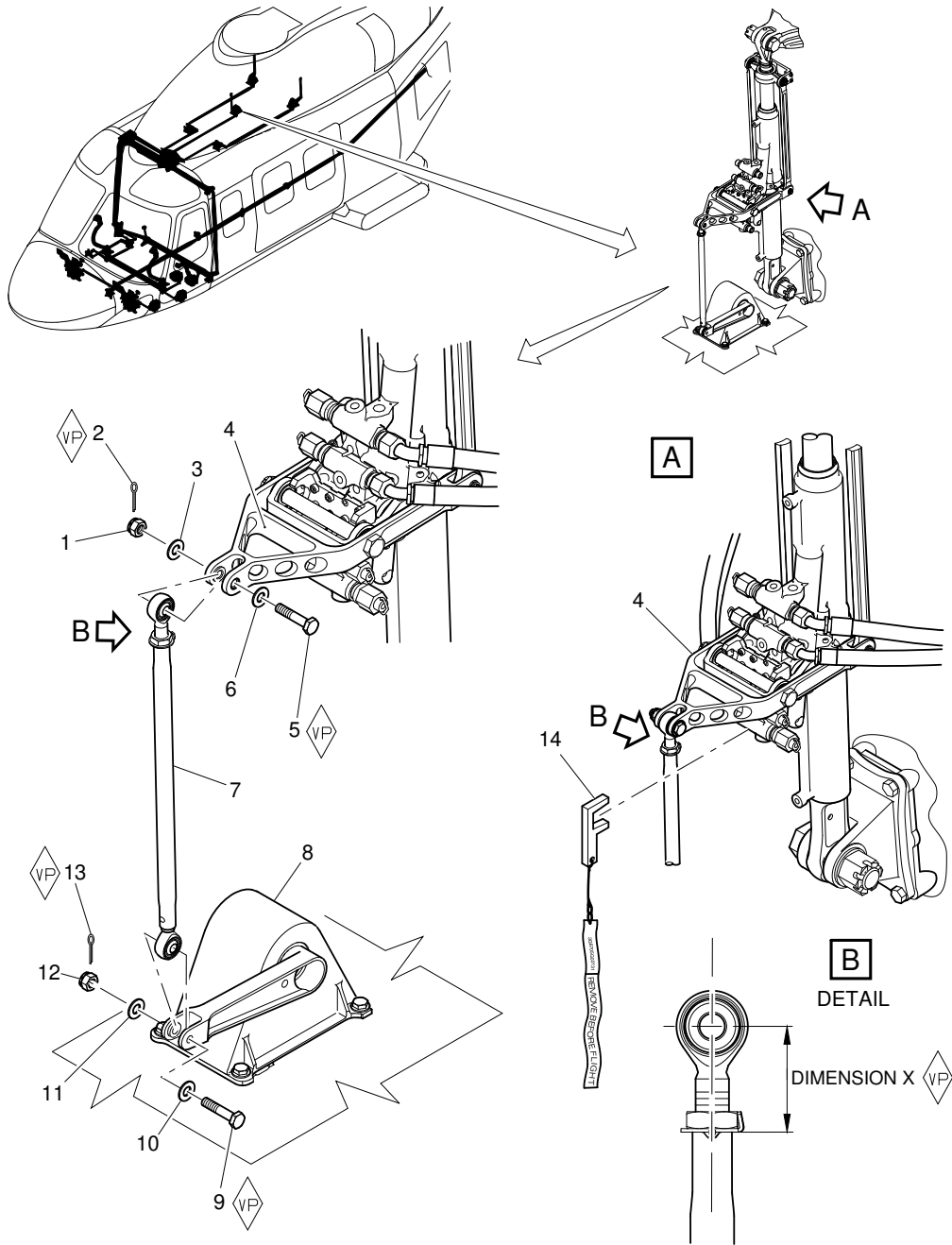
- 15 Decrease the external hydraulic pressure to zero and set the external hydraulic power to off.

- 16 Disconnect the external hydraulic power from the Number 1 main-hydraulic system. Refer to [39-A-12-42-00-00A-510A-A](#).

- 17 Remove the warning flag from the cockpit.

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close/install the access door/panels 473AL, 140AT and 140BT. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the left side of the fuselage.



ICN-39-A-671308-G-00001-08306-A-003-01

Figure 1 Control rod M8 - Install procedure

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ANNEX 3

Control rod M6 - Install procedure

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Table 1 References

Data Module	Title
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-42-00-00A-510A-A	External hydraulic power - Disconnect procedure
39-A-20-00-00-00A-711A-A	Threaded fasteners - Tighten procedure
39-A-60-80-00-02A-271A-A	Control rods - Adjust
39-A-60-80-00-02A-91GA-A	Control rods - Location of rigging pins

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A
The access door/panels 473AL, 140AT and 140BT must be opened/removed	39-A-06-41-00-00A-010A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Tool kit, flight control adjustment	GF-66-00	1
Warning flag	GF-66-09	1

Supplies

Table 6 Supplies

Nomenclature	
No Supplies	

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Control rod M6	67-13-00-01 -011	AR
Cotter pin	67-13-00-01 -017	2

Table 7 Spares

Nomenclature	Identification No.	Qty
Washer	67-13-00-01 -039	AR
Washer	67-13-00-01 -042	AR

Safety Conditions

WARNING

This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

- 1 Make sure that the [Warning flag \(GF-66-09\)](#) is in position in the cockpit.
- 2 Put the control rod M6 (7, [Figure 1](#)) in position between the bellcrank M5-M6 (10) and the lever (1) of the Number 3 servoactuator.

Note

If necessary, you can install two more [Washer \(67-13-00-01 -039\)](#) (13) adjacent to the nut (11).

- 3 Install these parts that attach the control rod M6 (7) to the bellcrank M5-M6 (10):
 - The countersunk washer (8)
 - The bolt (9) (VP)
 - The washer(s) (13)
 - The nut (11).

Make sure that the countersunk side of the washer (8) is adjacent to the head of the bolt (9). (VP)

- 4 Tighten the nut (11) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). (VP)
- 5 Install the new [Cotter pin \(67-13-00-01 -017\)](#) (12) (VP).

Note

The subsequent step is applicable only if you install the removed control rod M6. If you replaced the control rod M6 with a new item, go to the [step 7](#).

- 6 Measure the Dimension X on the control rod M6 (7) to make sure that the value recorded at removal had no changes. (VP)

- 7 If you installed a new [Control rod M6 \(67-13-00-01 -011\)](#) (7), adjust its length as necessary to connect it to the lever (1). To do this, refer to [39-A-60-80-00-02A-271A-A](#).

Note

If necessary, you can install two more [Washer \(67-13-00-01 -042\)](#) (4) adjacent to the nut (3).

- 8 Install these parts that attach the control rod M6 (7) to the lever (1) of the Number 3 servoactuator:
- The countersunk washer (5)
 - The bolt (6) (VP)
 - The washer(s) (4)
 - The nut (3).

Make sure that the countersunk side of the washer (5) is adjacent to the head of the bolt (6). (VP)

- 9 Tighten the nut (3) to the standard torque value. Refer to [39-A-20-00-00-00A-711A-A](#). (VP)

- 10 Install the new [Cotter pin \(67-13-00-01 -017\)](#) (12) (VP).

- 11 Remove the rigging fork (14) from the lever (1) of the Number 3 servoactuator.

- 12 Adjust the operating pressure of the hydraulic test stand to 50 bar (725 lbf/in²).

- 13 Operate the hydraulic test stand and pressurize the Number 1 main-hydraulic system.

- 14 Get access to mixing unit in the cabin and remove the rigging pins from:

- The rear arm link and the mixing unit support
- The mixing unit slide and the longitudinal-mixing unit lever
- The longitudinal-mixing unit lever and the lateral-mixing unit lever.

For rigging pins location refer to [39-A-60-80-00-02A-91GA-A](#).

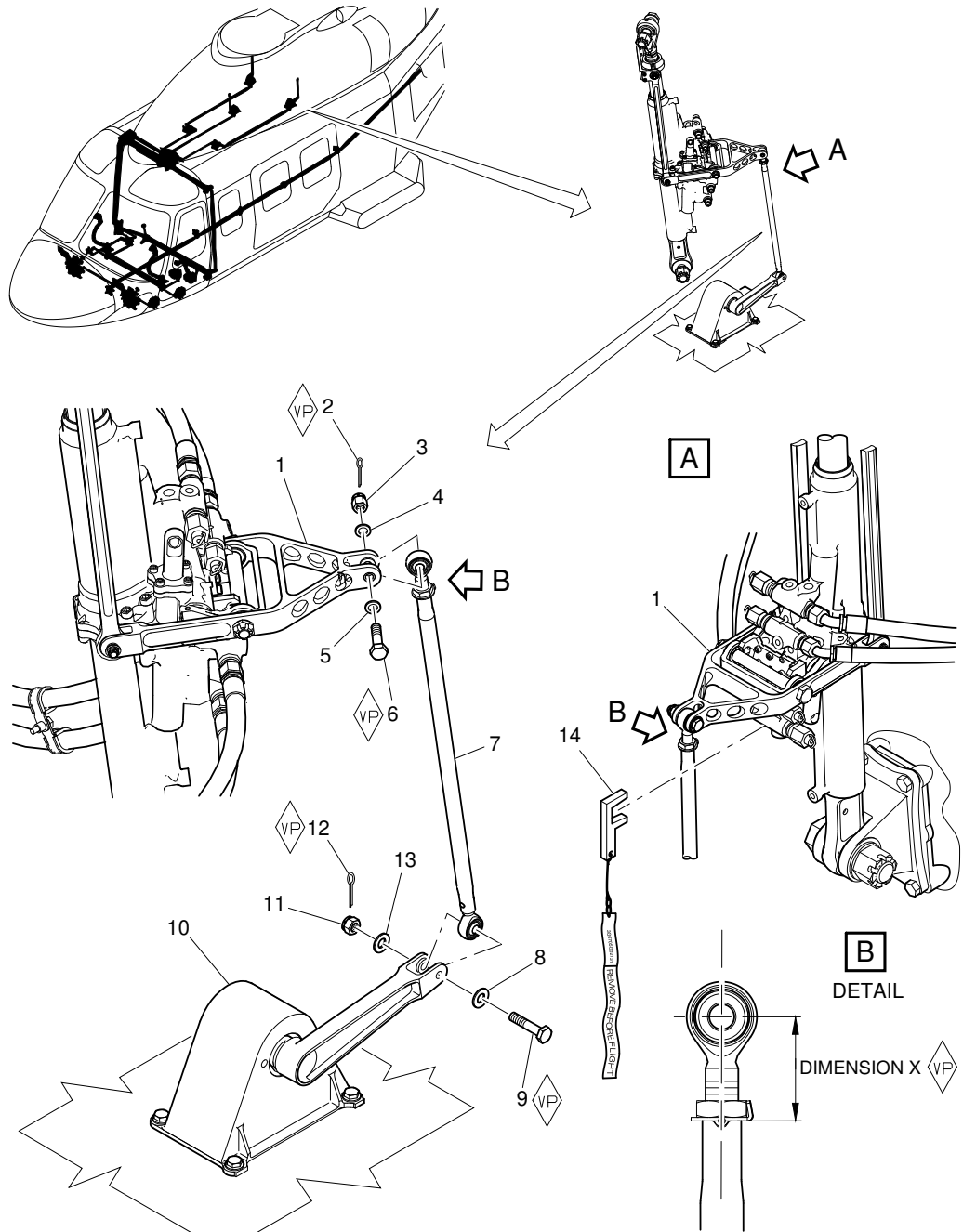
- 15 Decrease the external hydraulic pressure to zero and set the external hydraulic power to off.

- 16 Disconnect the external hydraulic power from the Number 1 main-hydraulic system. Refer to [39-A-12-42-00-00A-510A-A](#).

- 17 Remove the warning flag from the cockpit.

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close/install the access door/panels 473AL, 140AT and 140BT. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the left side of the fuselage.



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Figure 1 Control rod M6 - Install procedure

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ANNEX 4

Number 1 servoactuator - Install procedure

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References

Table 1 References

Data Module	Title
39-A-00-00-00-00A-02AA-D	Maintenance publication - List of effectivity codes
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-11-08-00A-218A-A	Number 1 power control module - Fill with other liquid
39-A-12-11-09-00A-218A-A	Number 2 power control module - Fill with other liquid
39-A-20-00-00-00A-69CA-A	Assembled parts - Slippage Marks

Table 1 References

Data Module	Title
39-A-20-20-00-00A-711A-A	Hose and tube fittings - Tighten procedure
39-A-20-40-00-00A-010A-A	Standard practices - Hydraulic system - General data
39-A-29-10-00-00A-231A-A	Main hydraulic system - Bleed
39-A-29-10-00-00A-320A-A	Main hydraulic system - Operation test
39-A-67-13-08-00A-720A-A	Control rod M8 - Install procedure
39-A-67-32-01-02A-921A-B	Pressure switch protective vent (tail rotor servoactuator) - Replacement (remove and install a new item)

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Spatula	ZZ-00-00	1

Supplies

Table 6 Supplies

Nomenclature	Identification No.	Qty
Corrosion inhibitor	C002	AR
Lint-free cloth	C011	AR
Cleaning solvent	C010	AR
Sealant	C142	AR
Corrosion inhibitive compound	C621	AR

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Number 1 servoactuator	67-31-00-01 -001	AR
Cotter pin	67-31-00-01 -006	2
Special washer	67-31-00-01 -028	1
Boot	67-31-00-01 -028	1
Firesleeve	67-31-01-01 -001	2
Strap	67-31-00-01 -030	6

Safety Conditions

WARNINGS

- The materials that follow are dangerous. Before you do this procedure, make sure that you know all the safety precautions and first aid instructions for these materials:
 - Corrosion inhibitor (C002)
 - Cleaning solvent (C010)
 - Sealant (C142)
 - Corrosion inhibitive compound (C621).
- In this procedure, get a second person to help you install the Number 1 servoactuator.
- This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

Note

To know the meaning of the effectivity code (or codes) shown in this data module, refer to [39-A-00-00-00-00A-02AA-D](#).

- 1 Before you do this procedure, refer to hydraulic-system standard practices. Make sure you use these standard practices during this procedure. Refer to [39-A-20-40-00-00A-010A-A](#).
- 2 During this procedure, you must remove the caps/plugs from:
 - The line ends
 - The component ports
 - The electrical connectors.Do this immediately before you connect each line or each electrical connector or install each item.
- 3 Put and hold the Number 1 servoactuator (8, [Figure 1](#)) in its position between the support (14) and the fixed swashplate (6).
- 4 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt ([5](#)). ([VP](#))
- 5 Install these parts that attach the Number 1 servoactuator (8) to the fixed swashplate (6):
 - The countersunk washer ([4](#)) ([VP](#))
 - The bolt ([5](#)) ([VP](#))
 - The washer ([3](#)) ([VP](#))
 - The nut ([1](#)). ([VP](#))Make sure that the countersunk side of the washer ([4](#)) is adjacent to the head of the bolt ([5](#)). ([VP](#))
- 6 Torque the nut ([1](#)) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). ([VP](#))
- 7 Safety the nut ([1](#)) to the bolt ([5](#)) with the new [Cotter pin \(67-31-00-01 -006\)](#) ([2](#)). ([VP](#))
- 8 Put the washers ([15](#)) and ([16](#)) in their positions on the support (14). ([VP](#))
- 9 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt ([12](#)). ([VP](#))
- 10 Install these parts that attach the Number 1 servoactuator (8) and the washers ([15](#)) and ([16](#)) to the support (14): ([VP](#))
 - The countersunk washer ([11](#)) ([VP](#))
 - The washer ([13](#)) ([VP](#))
 - The bolt ([12](#)) ([VP](#))
 - The washer ([24](#)) ([VP](#))
 - The nut ([22](#)). ([VP](#))

Make sure that the countersunk side of the washer ([11](#)) is adjacent to the head of the bolt ([12](#)). ([VP](#))

- 11 Torque the nut ([22](#)) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). ([VP](#))
- 12 Safety the nut ([22](#)) to the bolt ([12](#)) with the new [Cotter pin \(67-31-00-01 -006\)](#) ([24](#)). ([VP](#))
- 13 Connect the hoses that follow to the related ports of the Number 1 servoactuator (8):
- The pressure hose (10)
 - The return hose (9).
- 14 Tighten the hoses (10) and (9) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 15 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 16 Connect the hoses that follow to the related ports of the Number 1 servoactuator (8):
- The return hose (20)
 - The pressure hose (21).
- 17 Tighten the hoses (20) and (21) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 18 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 19 Install the parts that attach the control rod M8 (19) to the Number 1 servoactuator (8). Refer to [39-A-67-13-08-00A-720A-A](#). (See ANNEX 2 of this TMI)
- 20 Make sure that the pressure switches (18) and (25) are replaced with the applicable protective vents. If the protective vents are not installed, install them. To do this, refer to data module [39-A-67-32-01-02A-921A-B](#).
- 21 On helicopters [10Q], do the operations that follow:
- 21.1 Clean the surface of the pressure switch (18) with the [Corrosion inhibitor \(C002\)](#) and the [Lint-free cloth \(C011\)](#) to remove the unwanted dirt particles.
- 21.2 Examine the firesleeve (27) for its condition. If necessary replace the firesleeve (27) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 21.3 Put the firesleeve (27) on the pressure switch (18). Continue until the firesleeve (27) is against the manifold body of the Number 1 servoactuator (8).
- 21.4 Attach the firesleeve (27) to the pressure switch (18) with the two new [Strap \(67-31-00-01 -030\)](#) (26) and (28).
- 21.5 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (27) and the pressure switch (18) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.

-
- 21.6 Install the new [Special washer \(67-31-00-01 -028 \)](#) (29) at the bottom of the pressure switch (18). Make sure that the special rubber washer (29) is fully against the bottom edge of the firesleeve (27).
- 21.7 Connect the connector HP9P2 (17) to the pressure switch (18).
- 22 On helicopters [10R], do the operations that follow:
- 22.1 Clean the surface of the pressure switch (18) with the [Corrosion inhibitor \(C002\)](#) and the [Lint-free cloth \(C011\)](#) to remove the unwanted dirt particles.
- 22.2 Examine the firesleeve (31) for its condition. If necessary replace the firesleeve (31) with a new [Firesleeve \(67-31-01-01 -001 \)](#).
- 22.3 Put the firesleeve (31) on the pressure switch (18). Continue until the firesleeve (31) is against the manifold body of the Number 1 servoactuator (8).
- 22.4 Attach the firesleeve (31) to the pressure switch (18) at the top with the clamp (30).
- 22.5 Tighten the clamp (30) to 2.03 N m (18.0 lbf in) maximum.
- 22.6 Install the grommet (35) on the electrical connector (17).
- 22.7 Examine the boot (33) for its condition. If necessary replace the boot (33) with a new [Boot \(67-31-00-01 -028 \)](#).
- 22.8 Put the boot (33) on the firesleeve (31) from the bottom of the pressure switch (18).
- 22.9 Connect the connector HP9P2 (17) to the pressure switch (18).
- 22.10 Move the boot (33) along the firesleeve (31) until it goes on the grommet (35). Make sure that you obey the installation distance of the boot (33) as shown in the Sheet 2 of [Figure 1](#).
- 22.11 Attach the boot (33) to the firesleeve (31) at the bottom with the clamp or the new [Strap \(67-31-00-01 -030 \)](#) (32).
- 22.12 If you install the clamp (32), tighten it to 2.03 N m (18.0 lbf in) maximum.
- 22.13 If you install the strap (32), tighten it.
- 22.14 Attach the boot (33) to the grommet (35) with the new [Strap \(67-31-00-01 -030 \)](#) (34).
- 22.15 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (31) and the pressure switch (18) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 22.16 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the boot (33) and the firesleeve (31). If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 23 Clean the surface of the pressure switch (25) with the [Corrosion inhibitor \(C002\)](#) and the [Lint-free cloth \(C011\)](#) to remove the unwanted dirt particles.
-

- 24 Examine the firesleeve (7N) for its condition. If necessary replace the firesleeve (7N) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 25 Put the firesleeve (7N) on the pressure switch (25). Continue until the firesleeve (7N) is against the manifold body of the Number 1 servoactuator (8).
- 26 Attach the firesleeve (7N) to the pressure switch (25) with the two clamps (7M) and (7P) or the two new [Strap \(67-31-00-01 -030\)](#) .
- 27 If you install the two clamps, tighten them to 2.03 N m (18.0 lbf in) maximum.
- 28 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (7N) and the pressure switch (25) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 29 Connect the connector HP9P1 (7) to the pressure switch (25).
- 30 Apply the [Corrosion inhibitor \(C002\)](#) on the parts that attach the Number 1 servoactuator (8) to the fixed swashplate (6) and to the support (14).

Requirements After Job Completion

- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close the access door 473AL. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the left side of the fuselage.
- 4 Fill with fluid the Number 1 power-control module. Refer to [39-A-12-11-08-00A-218A-A](#)
- 5 Fill with fluid the Number 2 power-control module. Refer to [39-A-12-11-09-00A-218A-A](#)
- 6 Bleed the main hydraulic system. Refer to [39-A-29-10-00-00A-231A-A](#)
- 7 Do the operation test of the main hydraulic system. Refer to [39-A-29-10-00-00A-320A-A](#)

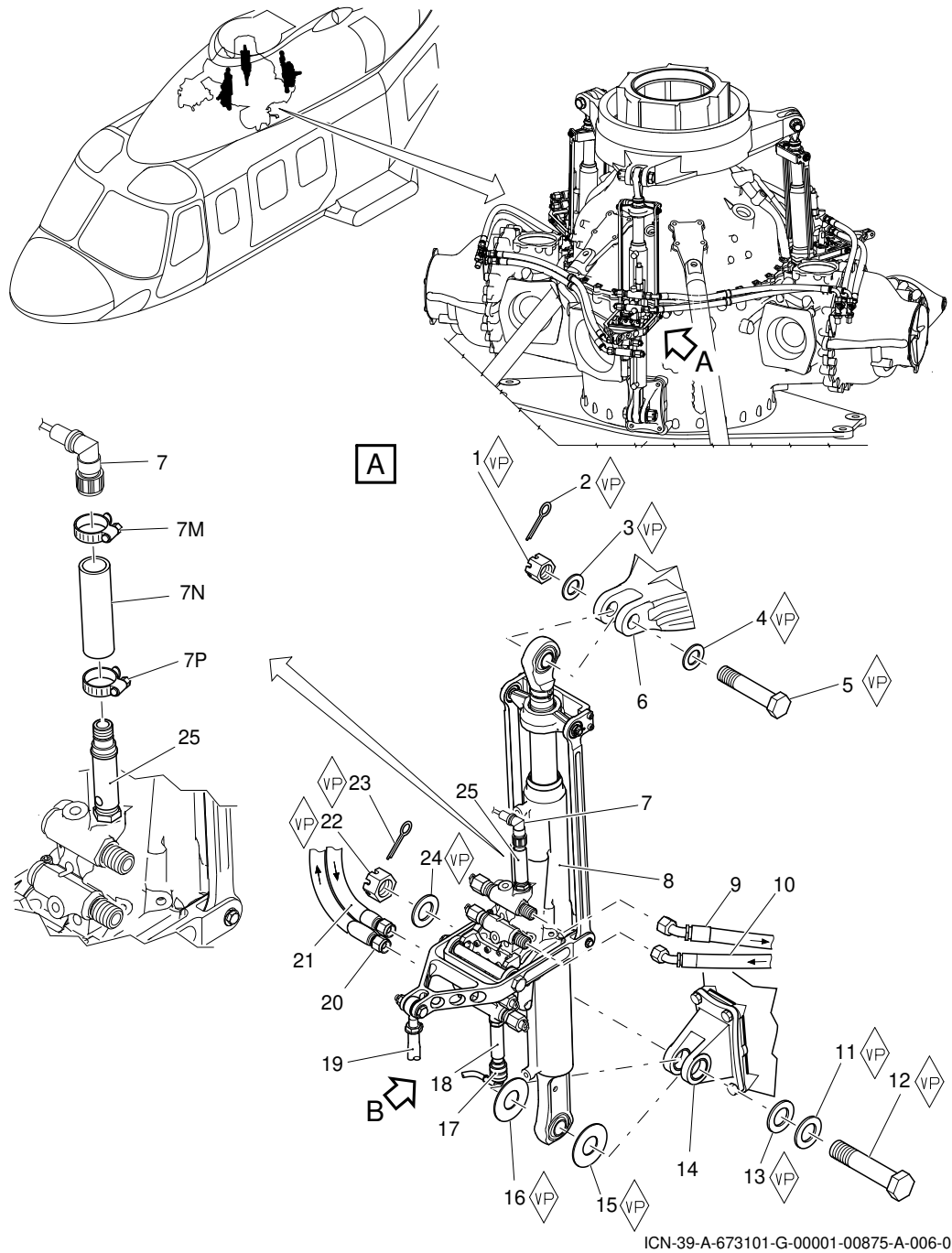
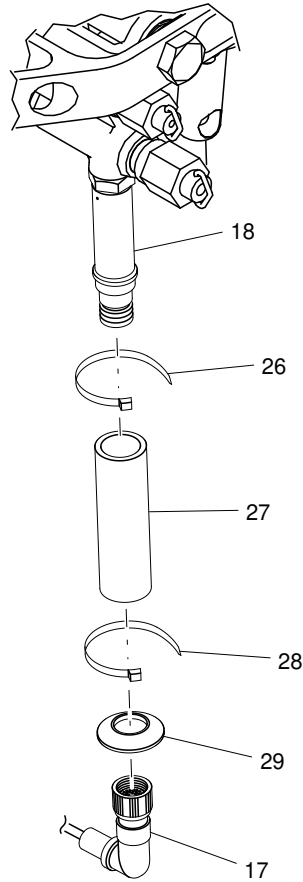
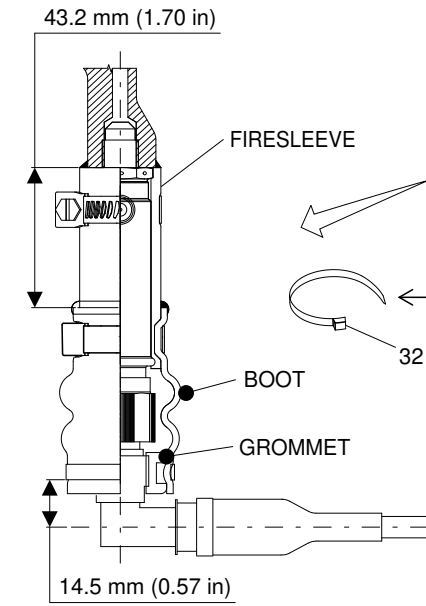
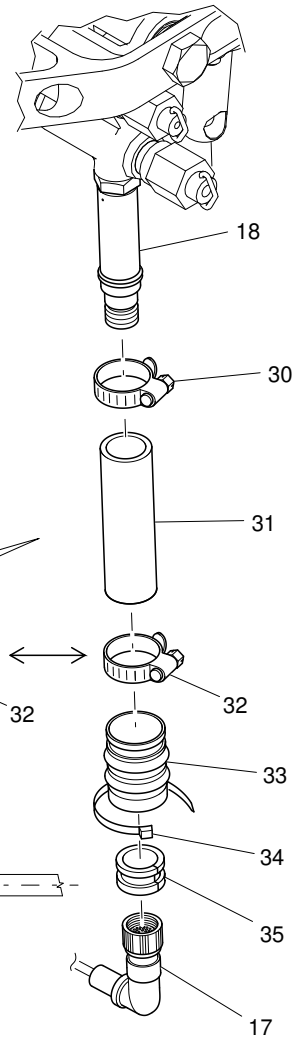


Figure 1 (Sheet 1 of 2) Number 1 servoactuator - Install procedure

B HELICOPTERS [10Q]



B HELICOPTERS [10R]



STRUCTURE PARTIALLY OMITTED FOR CLARITY

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Figure 1 (Sheet 2 of 2) Number 1 servoactuator - Install procedure

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ANNEX 5

Number 2 servoactuator - Install procedure

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References

Table 1 References

Data Module	Title
39-A-00-00-00-00A-02AA-D	Maintenance publication - List of effectivity codes
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-11-08-00A-218A-A	Number 1 power control module - Fill with other liquid
39-A-12-11-09-00A-218A-A	Number 2 power control module - Fill with other liquid
39-A-20-00-00-00A-69CA-A	Assembled parts - Slippage Marks

Table 1 References

Data Module	Title
39-A-20-20-00-00A-711A-A	Hose and tube fittings - Tighten procedure
39-A-20-40-00-00A-010A-A	Standard practices - Hydraulic system - General data
39-A-29-10-00-00A-231A-A	Main hydraulic system - Bleed
39-A-29-10-00-00A-320A-A	Main hydraulic system - Operation test
39-A-67-13-05-00A-720A-A	Control rod M3 - Install procedure
39-A-67-32-01-02A-921A-B	Pressure switch protective vent (tail rotor servoactuator) - Replacement (remove and install a new item)

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Spatula	ZZ-00-00	1

Supplies

Table 6 Supplies

Nomenclature	Identification No.	Qty
Corrosion inhibitor	C002	AR
Lint-free cloth	C011	AR
Cleaning solvent	C010	AR
Sealant	C142	AR
Corrosion inhibitive compound	C621	AR

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Number 2 servoactuator	67-31-00-01 -010	AR
Cotter pin	67-31-00-01 -015	2
Special washer	67-31-00-01 -028	1
Boot	67-31-00-01 -028	1
Firesleeve	67-31-01-01 -001	2
Strap	67-31-00-01 -030	6

Safety Conditions

WARNINGS

- The materials that follow are dangerous. Before you do this procedure, make sure that you know all the safety precautions and first aid instructions for these materials:
 - Corrosion inhibitor (C002)
 - Cleaning solvent (C010)
 - Sealant (C142)
 - Corrosion inhibitive compound (C621).
- This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.
- In this procedure, get a second person to help you install the Number 2 servoactuator.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

Note

To know the meaning of the effectivity code (or codes) shown in this data module, refer to [39-A-00-00-00-00A-02AA-D](#).

- 1 Before you do this procedure, refer to hydraulic-system standard practices. Make sure you use these standard practices during this procedure. Refer to [39-A-20-40-00-00A-010A-A](#).
- 2 During this procedure, you must remove the caps/plugs from:
 - The line ends
 - The component ports
 - The electrical connectors.Do this immediately before you connect each line or each electrical connector or install each item.
- 3 Put and hold the Number 2 servoactuator (8, [Figure 1](#)) in its position between the support (14) and the fixed swashplate (6).
- 4 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt (1). (VP)
- 5 Install these parts that attach the Number 2 servoactuator (8) to the fixed swashplate (6):
 - The countersunk washer (2) (VP)
 - The bolt (1) (VP)
 - The washer (3) (VP)
 - The nut (5). (VP)Make sure that the countersunk side of the washer (2) is adjacent to the head of the bolt (1). (VP)
- 6 Torque the nut (5) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). (VP)
- 7 Safety the nut (5) to the bolt (1) with the new [Cotter pin \(67-31-00-01 -015\)](#) (4). (VP)
- 8 Put the washers (15) and (16) in their positions on the support (14). (VP)
- 9 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt (12). (VP)
- 10 Install these parts that attach the Number 2 servoactuator (8) and the washers (15) and (16) to the support (14): (VP)
 - The countersunk washer (11) (VP)
 - The washer (13) (VP)
 - The bolt (12) (VP)
 - The washer (22) (VP)
 - The nut (23). (VP)

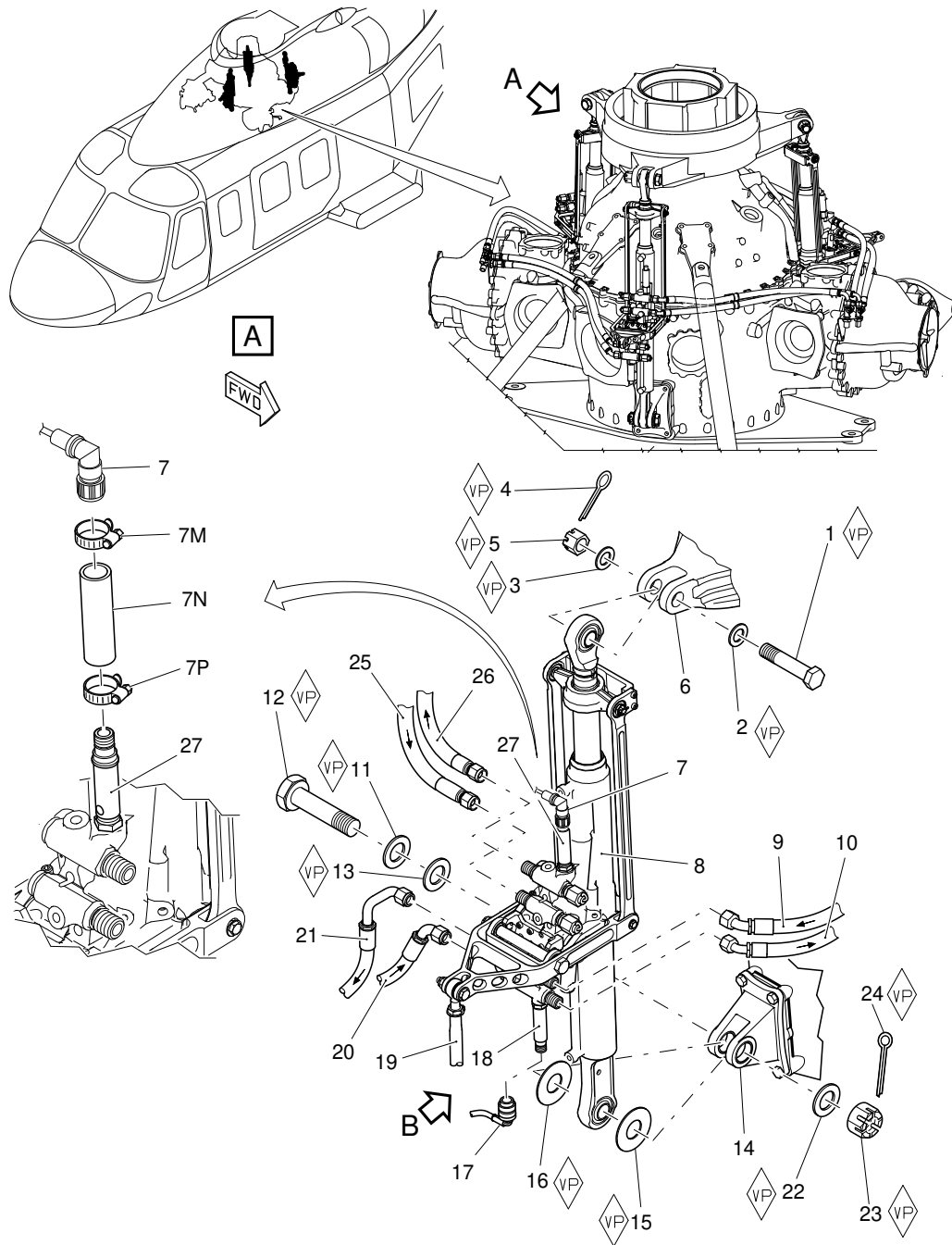
- Make sure that the countersunk side of the washer (11) is adjacent to the head of the bolt (12). (VP)
- 11 Torque the nut (23) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). (VP)
- 12 Safety the nut (23) to the bolt (12) with the new Cotter pin (67-31-00-01 -015) (24). (VP)
- 13 Connect the hoses that follow to the related ports of the Number 2 servoactuator (8):
- The return hose (26)
 - The pressure hose (25).
- 14 Tighten the hoses (26) and (25) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 15 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 16 Connect the hoses that follow to the related ports of the Number 2 servoactuator (8):
- The return hose (20)
 - The pressure hose (21)
 - The return hose (10)
 - The pressure hose (9).
- 17 Tighten the hoses (20), (21), (10) and (9) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 18 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 19 Install the parts that attach the control rod M3 (19) to the Number 2 servoactuator (8). Refer to [39-A-67-13-05-00A-720A-A](#). (See ANNEX 1 of this TMI)
- 20 Make sure that the pressure switches (18) and (27) are replaced with the applicable protective vents. If the protective vents are not installed, install them. To do this, refer to data module [39-A-67-32-01-02A-921A-B](#).
- 21 On helicopters [10Q], do the operations that follow:
- 21.1 Clean the surface of the pressure switch (18) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 21.2 Examine the firesleeve (29) for its condition. If necessary replace the firesleeve (29) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 21.3 Put the firesleeve (29) on the pressure switch (18). Continue until the firesleeve (29) is against the manifold body of the Number 2 servoactuator (8).
- 21.4 Attach the firesleeve (29) to the pressure switch (18) with the two new [Strap \(67-31-00-01 -030\)](#) (28) and (30).

-
- 21.5 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (29) and the pressure switch (18) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 21.6 Install the new [Special washer \(67-31-00-01 -028\)](#) (31) at the bottom of the pressure switch (18). Make sure that the special rubber washer (31) is fully against the bottom edge of the firesleeve (29).
- 21.7 Connect the connector HP10P2 (17) to the pressure switch (18).
- 22 On helicopters [10R], do the operations that follow:
- 22.1 Clean the surface of the pressure switch (18) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 22.2 Examine the firesleeve (33) for its condition. If necessary replace the firesleeve (33) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 22.3 Put the firesleeve (33) on the pressure switch (18). Continue until the firesleeve (33) is against the manifold body of the Number 2 servoactuator (8).
- 22.4 Attach the firesleeve (33) to the pressure switch (18) at the top with the clamp (32).
- 22.5 Tighten the clamp (32) to 2.03 N m (18.0 lbf in) maximum.
- 22.6 Install the grommet (37) on the electrical connector (17).
- 22.7 Examine the boot (35) for its condition. If necessary replace the boot (35) with a new [Boot \(67-31-00-01 -028\)](#) .
- 22.8 Put the boot (35) on the firesleeve (33) from the bottom of the pressure switch (18).
- 22.9 Connect the connector HP10P2 (17) to the pressure switch (18).
- 22.10 Move the boot (35) along the firesleeve (33) until it goes on the grommet (37). Make sure that you obey the installation distance of the boot (35) as shown in the Sheet 2 of [Figure 1](#).
- 22.11 Attach the boot (35) to the firesleeve (33) at the bottom with the clamp or the new [Strap \(67-31-00-01 -030\)](#) (34).
- 22.12 If you install the clamp (34), tighten it to 2.03 N m (18.0 lbf in) maximum.
- 22.13 If you install the strap (34), tighten it.
- 22.14 Attach the boot (35) to the grommet (37) with the new [Strap \(67-31-00-01 -030\)](#) (36).
- 22.15 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (33) and the pressure switch (18) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 22.16 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the boot (35) and the firesleeve (33). If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
-

- 23 Clean the surface of the pressure switch (27) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 24 Examine the firesleeve (7N) for its condition. If necessary replace the firesleeve (7N) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 25 Put the firesleeve (7N) on the pressure switch (27). Continue until the firesleeve (7N) is against the manifold body of the Number 2 servoactuator (8).
- 26 Attach the firesleeve (7N) to the pressure switch (27) with the two clamps (7M) and (7P) or the two new [Strap \(67-31-00-01 -030\)](#) .
- 27 If you install the two clamps, tighten them to 2.03 N m (18.0 lbf in) maximum.
- 28 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (7N) and the pressure switch (27) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 29 Connect the connector HP10P1 (7) to the pressure switch (27).
- 30 Apply the [Corrosion inhibitor \(C002\)](#) on the parts that attach the Number 2 servoactuator (8) to the fixed swashplate (6) and to the support (14).

Requirements After Job Completion

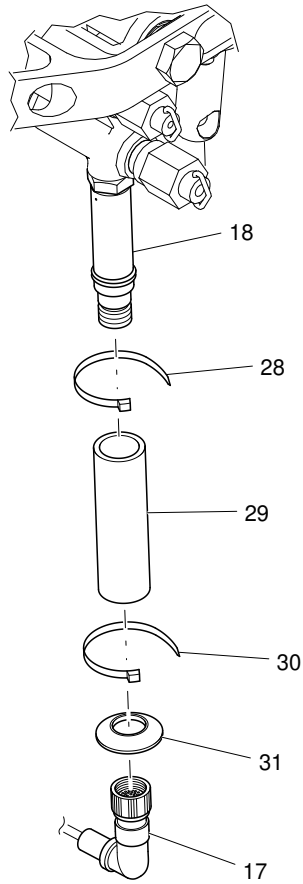
- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close the access door 473AL. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the right side of the fuselage.
- 4 Fill with fluid the Number 1 power-control module. Refer to [39-A-12-11-08-00A-218A-A](#)
- 5 Fill with fluid the Number 2 power-control module. Refer to [39-A-12-11-09-00A-218A-A](#)
- 6 Bleed the main hydraulic system. Refer to [39-A-29-10-00-00A-231A-A](#)
- 7 Do the operation test of the main hydraulic system. Refer to [39-A-29-10-00-00A-320A-A](#)



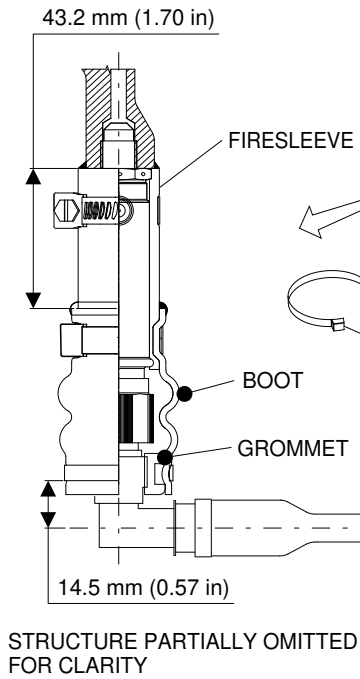
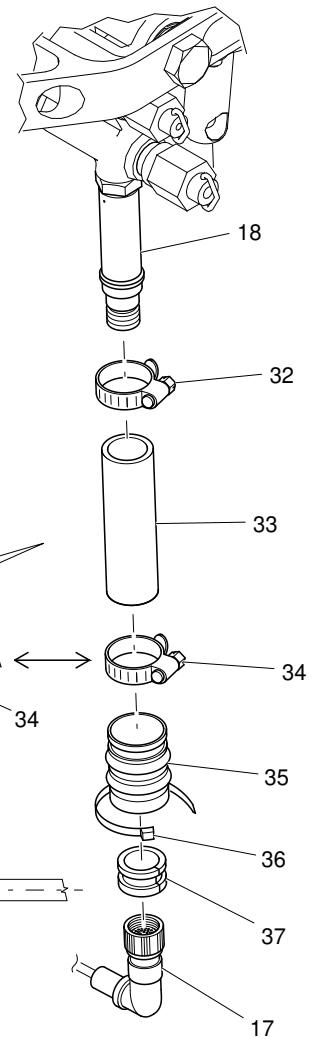
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Figure 1 (Sheet 1 of 2) Number 2 servoactuator - Install procedure

B (HELICOPTERS [10Q])



B (HELICOPTERS [10R])



ICN-39-A-673102-G-00001-36015-A-001-01

Figure 1 (Sheet 2 of 2) Number 2 servoactuator - Install procedure

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ANNEX 6

Number 3 servoactuator - Install procedure

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References

Table 1 References

Data Module	Title
39-A-00-00-00-00A-02AA-D	Maintenance publication - List of effectivity codes
39-A-00-20-00-00A-120A-A	Helicopter safety - Pre-operation (make helicopter safe for maintenance)
39-A-00-60-00-00A-010A-A	Critical parts - General data
39-A-12-11-08-00A-218A-A	Number 1 power control module - Fill with other liquid
39-A-12-11-09-00A-218A-A	Number 2 power control module - Fill with other liquid
39-A-20-00-00-00A-69CA-A	Assembled parts - Slippage Marks

Table 1 References

Data Module	Title
39-A-20-20-00-00A-711A-A	Hose and tube fittings - Tighten procedure
39-A-20-40-00-00A-010A-A	Standard practices - Hydraulic system - General data
	Main hydraulic system - Bleed
39-A-29-10-00-00A-231A-A	Main hydraulic system - Operation test
39-A-29-10-00-00A-320A-A	
39-A-67-13-13-00A-720A-A	Control rod M6 - Install procedure
39-A-67-32-01-02A-921A-B	Pressure switch protective vent (tail rotor servoactuator) - Replacement (remove and install a new item)

Table 2 Access points

Access Panel / Door Id	Data Module
No Access Point	

Table 3 Zones

Access Panel / Door Id	Data Module
No Zones	

Preliminary Requirements

Required Conditions

Table 4 Required Conditions

Conditions	Data Module/Technical Publication
The helicopter must be safe for maintenance	39-A-00-20-00-00A-120A-A

Support Equipment

Table 5 Support Equipment

Nomenclature	Identification No.	Qty
Spatula	ZZ-00-00	1

Supplies

Table 6 Supplies

Nomenclature	Identification No.	Qty
Corrosion inhibitor	C002	AR
Lint-free cloth	C011	AR
Cleaning solvent	C010	AR
Sealant	C142	AR
Corrosion inhibitive compound	C621	AR

Spares

Table 7 Spares

Nomenclature	Identification No.	Qty
Number 3 servoactuator	67-31-00-01 -019	AR
Cotter pin	67-31-00-01 -024	2
Special washer	67-31-00-01 -028	1
Boot	67-31-00-01 -028	1
Firesleeve	67-31-01-01 -001	2
Strap	67-31-00-01 -030	6

Safety Conditions

WARNINGS

- The materials that follow are dangerous. Before you do this procedure, make sure that you know all the safety precautions and first aid instructions for these materials:
 - Corrosion inhibitor (C002)
 - Cleaning solvent (C010)
 - Sealant (C142)
 - Corrosion inhibitive compound (C621).
- This installation includes Vital Points (VP). During the procedure, you must obey the Local Regulations applicable to the Vital Points.
- In this procedure, get a second person to help you install the Number 3 servoactuator.

CAUTION

This component is a critical part. Examine the component for signs of structural damage before you install it on the helicopter. Refer to [39-A-00-60-00-00A-010A-A](#).

Procedure

Note

To know the meaning of the effectivity code (or codes) shown in this data module, refer to [39-A-00-00-00-00A-02AA-D](#).

- 1 Before you do this procedure, refer to hydraulic-system standard practices. Make sure you use these standard practices during this procedure. Refer to [39-A-20-40-00-00A-010A-A](#).
- 2 During this procedure, you must remove the caps/plugs from:
 - The line ends
 - The component ports
 - The electrical connectors.Do this immediately before you connect each line or each electrical connector or install each item.
- 3 Put and hold the Number 3 servoactuator (7, [Figure 1](#)) in its position between the support (16) and the fixed swashplate (6).
- 4 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt ([5](#)). ([VP](#))
- 5 Install these parts that attach the Number 3 servoactuator (7) to the fixed swashplate (6):
 - The countersunk washer ([4](#)) ([VP](#))
 - The bolt ([5](#)) ([VP](#))
 - The washer ([3](#)) ([VP](#))
 - The nut ([1](#)). ([VP](#))Make sure that the countersunk side of the washer ([4](#)) is adjacent to the head of the bolt ([5](#)). ([VP](#))
- 6 Torque the nut ([1](#)) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). ([VP](#))
- 7 Safety the nut ([1](#)) to the bolt ([5](#)) with the new [Cotter pin \(67-31-00-01 -024\)](#) ([2](#)). ([VP](#))
- 8 Put the washers ([15](#)) and ([16](#)) in their positions on the support (14). ([VP](#))
- 9 Apply a thin layer of [Corrosion inhibitive compound \(C621\)](#) on the not threaded part of the shank of the bolt ([12](#)). ([VP](#))
- 10 Install these parts that attach the Number 3 servoactuator (7) and the washers ([17](#)) and ([18](#)) to the support (16): ([VP](#))
 - The countersunk washer ([13](#)) ([VP](#))
 - The washer ([15](#)) ([VP](#))
 - The bolt ([14](#)) ([VP](#))
 - The washer ([22](#)) ([VP](#))
 - The nut ([24](#)). ([VP](#))

Make sure that the countersunk side of the washer (13) is adjacent to the head of the bolt (14). (VP)

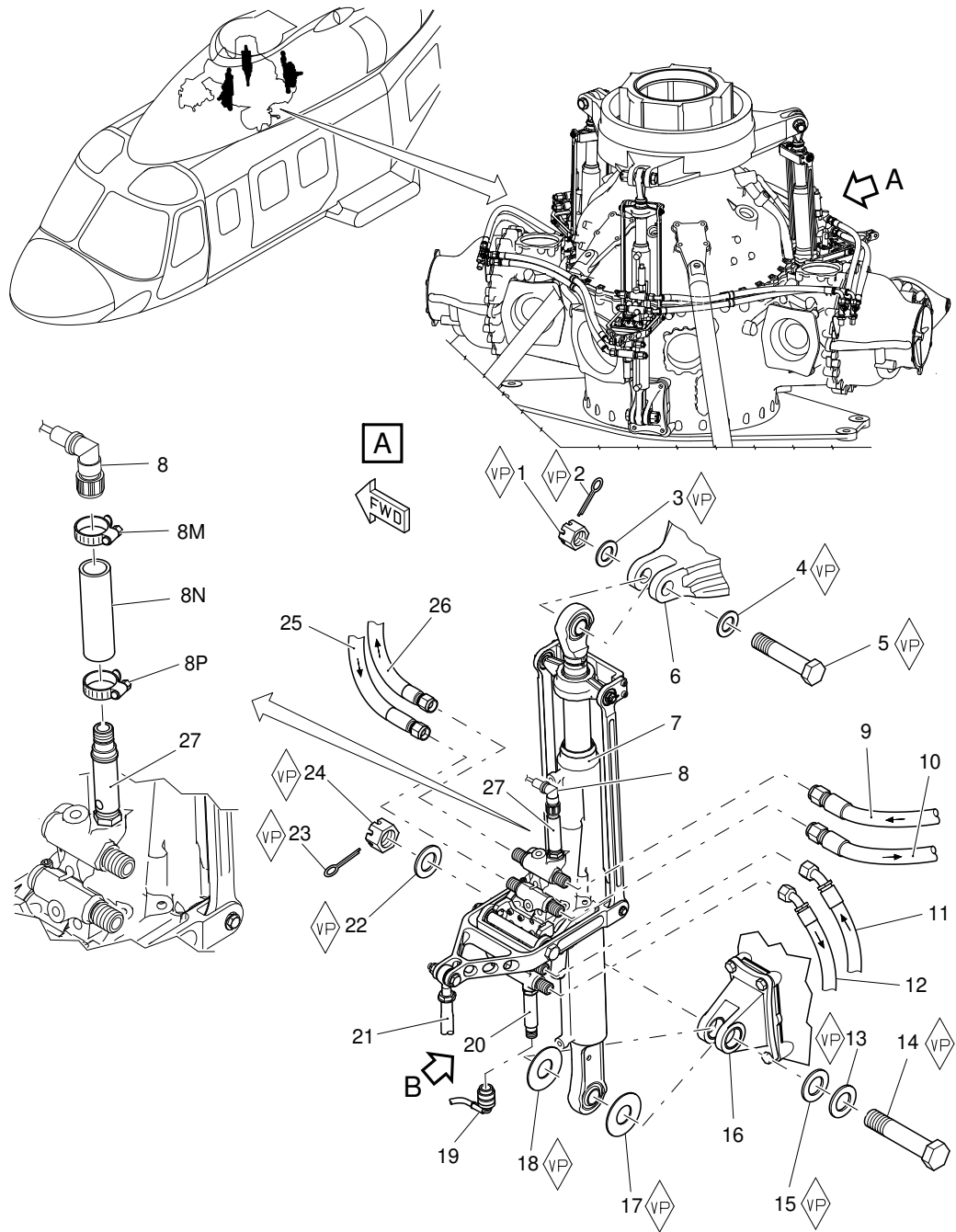
- 11 Torque the nut (24) to 61.04 thru 84.10 N m (45.02 thru 62.02 lbf ft). (VP)
- 12 Safety the nut (24) to the bolt (14) with the new Cotter pin (67-31-00-01 -024) (23). (VP)
- 13 Connect the hoses that follow to the related ports of the Number 3 servoactuator (7):
- The return hose (9)
 - The pressure hose (10)
 - The return hose (26)
 - The pressure hose (25).
- 14 Tighten the hoses (9), (10), (26) and (25) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 15 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 16 Connect the hoses that follow to the related ports of the Number 3 servoactuator (7):
- The pressure hose (11)
 - The return hose (12).
- 17 Tighten the hoses (11) and (12) to the standard torque value. Refer to [39-A-20-20-00-00A-711A-A](#).
- 18 Put the correct yellow slippage mark on the mating edge between the parts. Refer to [39-A-20-00-00-00A-69CA-A](#).
- 19 Install the parts that attach the control rod M6 (21) to the Number 3 servoactuator (7). Refer to [39-A-67-13-13-00A-720A-A](#). (See ANNEX 3 of this TMI)
- 20 Make sure that the pressure switches (20) and (27) are replaced with the applicable protective vents. If the protective vents are not installed, install them. To do this, refer to data module [39-A-67-32-01-02A-921A-B](#).
- 21 On helicopters [10Q], do the operations that follow:
- 21.1 Clean the surface of the pressure switch (20) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 21.2 Examine the firesleeve (29) for its condition. If necessary replace the firesleeve (29) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 21.3 Put the firesleeve (29) on the pressure switch (20). Continue until the firesleeve (29) is against the manifold body of the Number 3 servoactuator (7).
- 21.4 Attach the firesleeve (29) to the pressure switch (20) with the two new [Strap \(67-31-00-01 -030\)](#) (28) and (30).

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- 21.5 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (29) and the pressure switch (20) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 21.6 Install the new [Special washer \(67-31-00-01 -028\)](#) (31) at the bottom of the pressure switch (20). Make sure that the special rubber washer (31) is fully against the bottom edge of the firesleeve (29).
- 21.7 Connect the connector HP11P2 (19) to the pressure switch (20).
- 22 On helicopters [10R], do the operations that follow:
- 22.1 Clean the surface of the pressure switch (20) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 22.2 Examine the firesleeve (33) for its condition. If necessary replace the firesleeve (33) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 22.3 Put the firesleeve (33) on the pressure switch (20). Continue until the firesleeve (33) is against the manifold body of the Number 3 servoactuator (7).
- 22.4 Attach the firesleeve (33) to the pressure switch (20) at the top with the clamp (32).
- 22.5 Tighten the clamp (32) to 2.03 N m (18.0 lbf in) maximum.
- 22.6 Install the grommet (37) on the electrical connector (19).
- 22.7 Examine the boot (35) for its condition. If necessary replace the boot (35) with a new [Boot \(67-31-00-01 -028\)](#) .
- 22.8 Put the boot (35) on the firesleeve (33) from the bottom of the pressure switch (20).
- 22.9 Connect the connector HP11P2 (19) to the pressure switch (20).
- 22.10 Move the boot (35) along the firesleeve (33) until it goes on the grommet (37). Make sure that you obey the installation distance of the boot (35) as shown in the Sheet 2 of [Figure 1](#).
- 22.11 Attach the boot (35) to the firesleeve (33) at the bottom with the clamp or the new [Strap \(67-31-00-01 -030\)](#) (34).
- 22.12 If you install the clamp (34), tighten it to 2.03 N m (18.0 lbf in) maximum.
- 22.13 If you install the strap (34), tighten it.
- 22.14 Attach the boot (35) to the grommet (37) with the new [Strap \(67-31-00-01 -030\)](#) (36).
- 22.15 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (33) and the pressure switch (20) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 22.16 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the boot (35) and the firesleeve (33). If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
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- 23 Clean the surface of the pressure switch (27) with the [Lint-free cloth \(C011\)](#) and the [Cleaning solvent \(C010\)](#) to remove the unwanted dirt particles.
- 24 Examine the firesleeve (8N) for its condition. If necessary replace the firesleeve (8N) with a new [Firesleeve \(67-31-01-01 -001\)](#) .
- 25 Put the firesleeve (8N) on the pressure switch (27). Continue until the firesleeve (8N) is against the manifold body of the Number 3 servoactuator (7).
- 26 Attach the firesleeve (8N) to the pressure switch (27) with the two clamps (8M) and (8P) or the two new [Strap \(67-31-00-01 -030\)](#) .
- 27 If you install the two clamps, tighten them to 2.03 N m (18.0 lbf in) maximum.
- 28 Apply a bead of [Sealant \(C142\)](#) on the mating edge between the firesleeve (8N) and the pressure switch (27) at the top. If necessary, use the [Spatula \(ZZ-00-00\)](#) to apply the sealant.
- 29 Connect the connector HP11P1 (8) to the pressure switch (27).
- 30 Apply the [Corrosion inhibitor \(C002\)](#) on the parts that attach the Number 3 servoactuator (7) to the fixed swashplate (6) and to the support (16).

Requirements After Job Completion

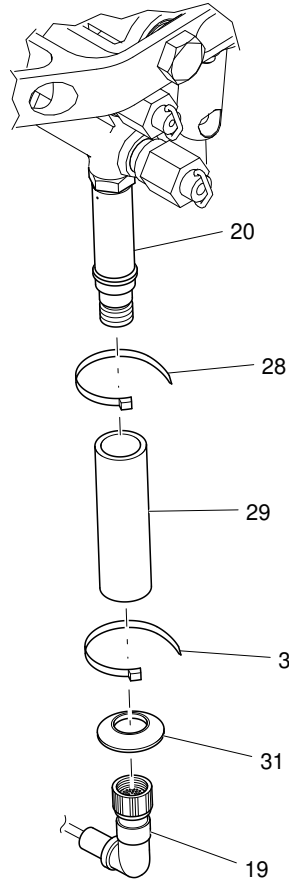
- 1 Remove all the tools and the other items from the work area. Make sure that the work area is clean.
- 2 Close the access door 473AL. Refer to [39-A-06-41-00-00A-010A-A](#)
- 3 Remove the platform from the left side of the fuselage.
- 4 Fill with fluid the Number 1 power-control module. Refer to [39-A-12-11-08-00A-218A-A](#)
- 5 Fill with fluid the Number 2 power-control module. Refer to [39-A-12-11-09-00A-218A-A](#)
- 6 Bleed the main hydraulic system. Refer to [39-A-29-10-00-00A-231A-A](#)
- 7 Do the operation test of the main hydraulic system. Refer to [39-A-29-10-00-00A-320A-A](#)



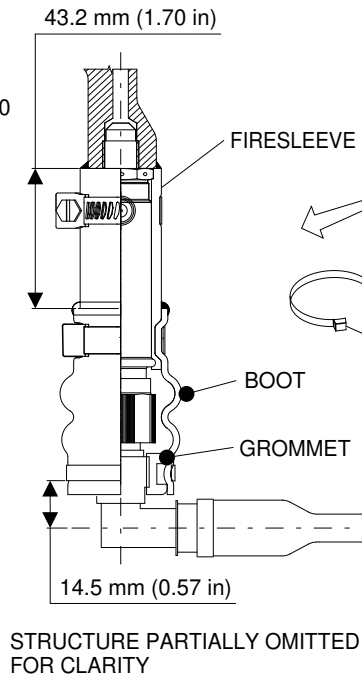
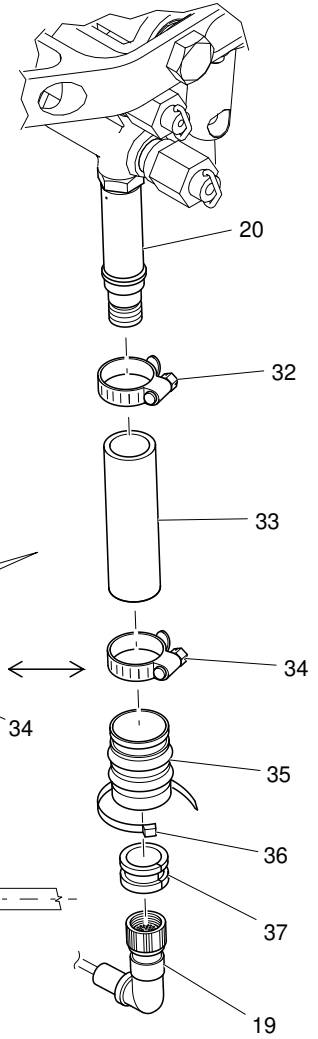
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Figure 1 (Sheet 1 of 2) Number 3 servoactuator - Install procedure

B (HELICOPTERS [10Q])



B (HELICOPTERS [10R])



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Figure 1 (Sheet 2 of 2) Number 3 servoactuator - Install procedure

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