



## AIRCRAFT MAINTENANCE MANUAL

### UPPER COWLING TIE ROD - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

#### 1. General

- A. This section gives the procedures to remove/install the upper cowling tie rod.
- B. These procedures are applicable to the LH and RH engines.
- C. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
71-11-02-000-801-A	UPPER COWLING TIE ROD - REMOVAL	ALL
71-11-02-400-801-A	UPPER COWLING TIE ROD - INSTALLA- TION	ALL



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 71-11-02-000-801-A

EFFECTIVITY: ALL

2. UPPER COWLING TIE ROD - REMOVAL

A. General

- (1) Obey the instructions below to remove the upper cowling tie rod.

B. References

REFERENCE	DESIGNATION
AMM TASK 71-11-01-000-801-A/400	ENGINE UPPER COWLING - REMOVAL
AMM TASK 71-12-01-000-802-A/400	ENGINE LOWER COWLING - REMOVAL

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
412	Upper cowling	LH - engine
422	Upper cowling	RH - engine
413	Lower cowling	LH - engine
423	Lower cowling	RH - engine

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 151	LH/RH Upper and Lower Sling	To remove the upper/lower cowling	

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the work area	1
Commercially available	Hoist	To lift the cowling	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
2	Do the task	Engine upper cowling



I. Preparation

SUBTASK 841-002-A

- (1) Put the work stand in position and get access to the engine nacelle.
- (2) Remove the engine lower cowling ([AMM TASK 71-12-01-000-802-A/400](#)).
- (3) Remove the engine upper cowling ([AMM TASK 71-11-01-000-801-A/400](#)).

J. Removal ([Figure 401](#))

SUBTASK 020-002-A

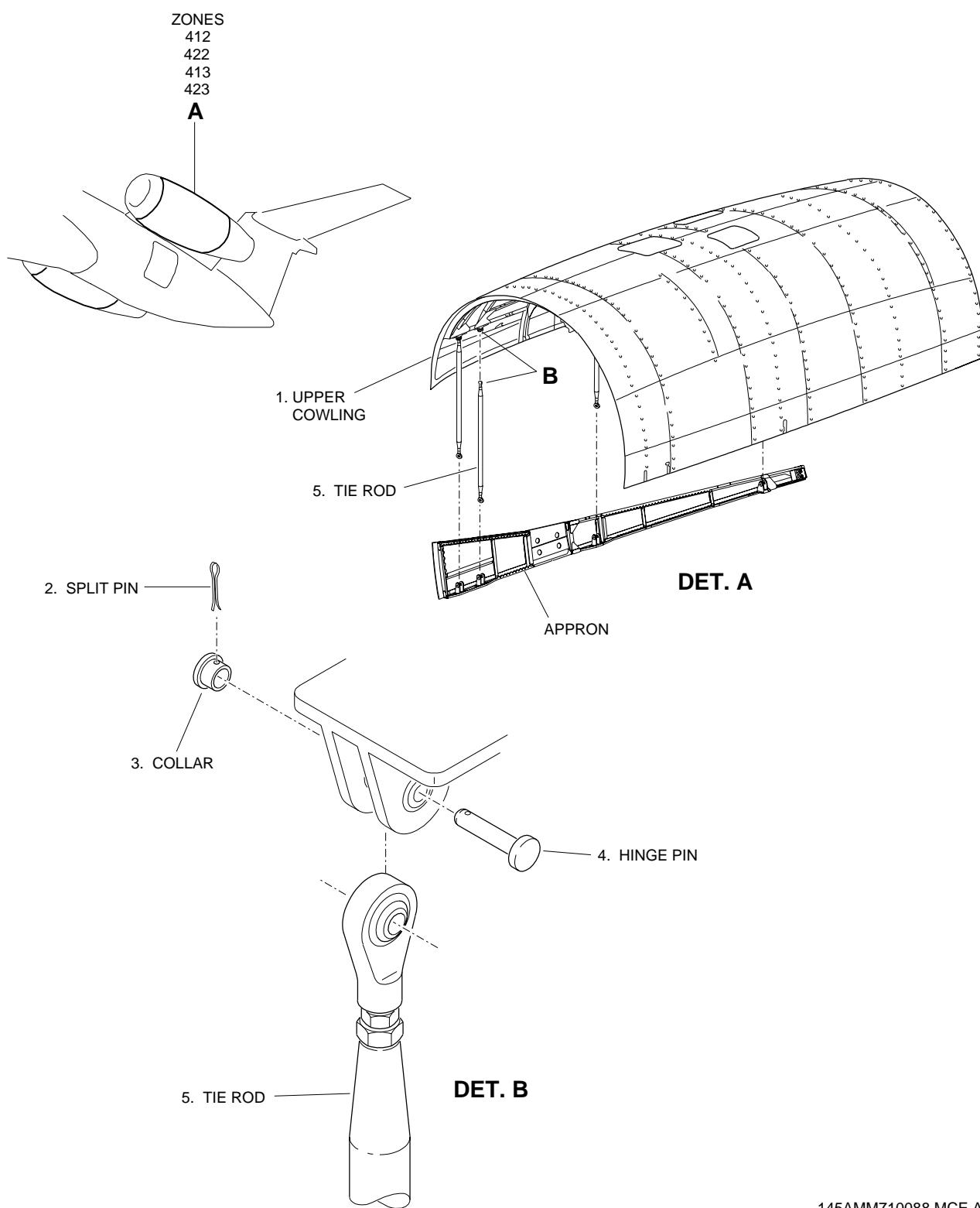
**WARNING: DO NOT TOUCH THE ENGINE COMPONENTS UNTIL THEY ARE COOL.  
TEMPERATURE CAN STAY HOT AFTER THE ENGINE STOPS.**

- (1) Remove the split pins (2) and collars (3) from the hinge pins (4). Discard the split pins.
- (2) Remove the tie rods (5).

**EFFECTIVITY: ALL**

Upper Cowling Tie Rod - Removal/Installation

Figure 401



145AMM710088.MCE A



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

TASK 71-11-02-400-801-A

EFFECTIVITY: ALL

3. UPPER COWLING TIE ROD - INSTALLATION

## A. General

- (1) Obey the instructions below to install the upper cowling tie rod.

## B. References

REFERENCE	DESIGNATION
54-10-00	-
AMM TASK 71-11-01-400-801-A/400	ENGINE UPPER COWLING - INSTALLATION
AMM TASK 71-12-01-400-802-A/400	ENGINE LOWER COWLING - INSTALLATION

## C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
412	Upper cowling	LH - engine
422	Upper cowling	RH - engine
413	Lower cowling	LH - engine
423	Lower cowling	RH - engine

## D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 151	LH/RH Upper and Lower Sling	To install the upper/lower cowling	

## E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	Workstand	To get access to the work area	1
Commercially available	Hoist	To lift the cowling	1

## F. Consumable Materials

Not Applicable

## G. Expendable Parts

ITEM	IPC REFERENCE (VENDOR REFERENCE)	QTY
Split pins	54-10-00	4



EMB145 – EMB135

AIRCRAFT  
MAINTENANCE MANUAL

H. Persons Recommended

QTY	FUNCTION	PLACE
2	Do the task	Engine Nacelle

I. Installation (Figure 401)

SUBTASK 420-002-A

- (1) Put the tie rod (5) in the installation position.
- (2) Install all hinge pins (4) in the sequence FWD to RWD.
- (3) Install the collars (3) and split pins (2).

J. Follow on

SUBTASK 842-002-A

- (1) Install the engine upper cowling ([AMM TASK 71-11-01-400-801-A/400](#)).
- (2) Install the engine lower cowling ([AMM TASK 71-12-01-400-802-A/400](#)).
- (3) Remove the work stand from the work area.