

SUPPLEMENTAL AIRPLANE MAINTENANCE MANUAL

DA 42 NG

INSTALLATION INSTRUCTIONS FOR SYSTEM O11

Secondary Power Lever

This Supplemental AMM is approved in conjunction with the Optional Design Change Advisory OÄM 42-301 and is valid in conjunction with the basic Airplane Maintenance Manual (AMM).

The limitations and information contained herein either supplement or, in the case of conflict, override those in the AMM.

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This document must be carried in the Airplane Maintenance Manual (AMM) at all times. It describes the maintenance procedures.

The technical information contained in this document has been approved under the authority of DOA No. EASA.21J.052.

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CHAPTER 03 – GENERAL DESCRIPTION

1. Description

The DA 42 NG can be equipped with optional secondary power levers for training purposes. They are located on the LH side console and connected with the main power levers by bowden cables and clutches.

Note: All measures must be carried out by a certified airplane maintenance station or a certified airplane mechanic.

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CHAPTER 05 – TIME LIMITS AND MAINTENANCE CHECKS

Section 05-28-50

Maintenance Checklist Airframe

2. Cabin

F. Other Cockpit Controls

	Inspection Items, Other Cockpit Controls	Interval					Time	Initials
		100	200	1000	2000			
1.	If OÄM 42-301 is installed: Examine the secondary power levers: <ul style="list-style-type: none"> - Check for damage. - Verify functionality of clutch disengagement and re-engagement. (disengagement force between 50 and 105 N) 		X	X	X			

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Section 05-28-92
Check Flight Report

1. Check Flight Report

Functional Check, Flight Behavior	Findings		
	N/A	NO	YES
ON GROUND, ENGINES OFF			
Secondary power lever clutch disengagement			

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Chapter 27 – FLIGHT CONTROLS

2. Description

If OÄM 42-301 is installed:

Secondary power levers, for pilot training purposes are installed on the LH side console. These secondary power levers are connected to the main power levers on the centre console via bowden cables. To prevent jamming of the main power levers clutches between main and secondary power levers are installed.

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CHAPTER 76 – ENGINE CONTROLS

1. General

This section describes the installation of the secondary power levers, which are installed on the LH side console.

2. Description

Each engine has one main power lever on the centre console and one secondary power lever on the LH side console. Electrical cables connect the main power levers to the engine control systems (ECU). The secondary power levers are slaved to the main power levers via bowden cables and clutches. Figure 1 shows this system.

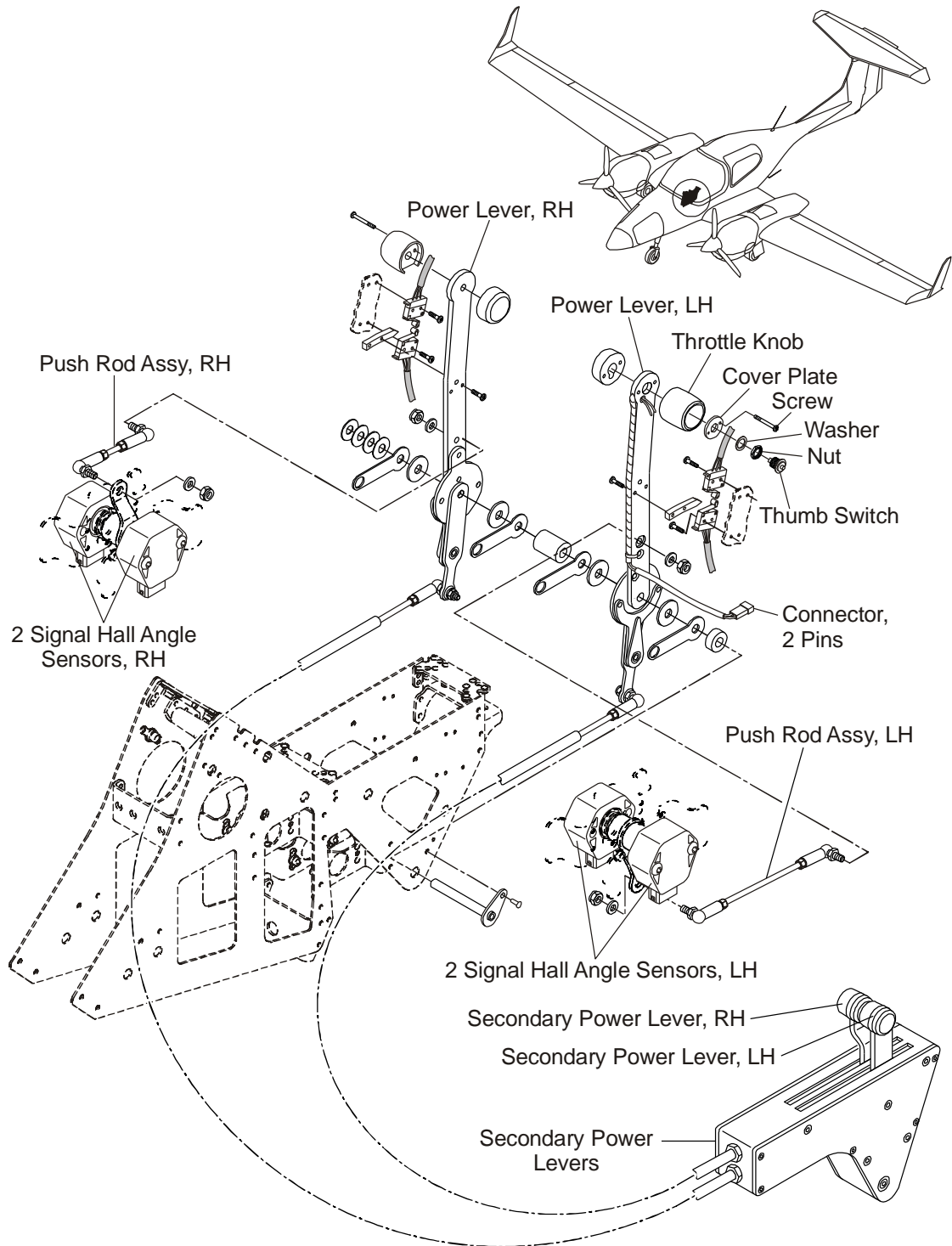


Figure 1: Engine Power Levers (main and secondary)

D. Power Levers

Each engine has a dedicated power lever. Figure 1 shows the installation of the main and secondary power levers. The main power levers are located on the centre console and assemble as a unit to the main engine control assembly. The secondary power levers are located on the LH side console.

The secondary power levers are slaved to the main power levers via bowden cables and clutches.

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Maintenance Practices

1. General

These Maintenance Practices describe how to remove and install the main components in an engine control system. All other work on the engine control systems can only be done by a AE approved maintenance shop or the manufacturer.

2. Remove/Install the Secondary Power Levers

A. Remove the Secondary Power Levers

	Detail Steps/Work Items	Key Items/References
(1)	Make sure that the engines are safe: <ul style="list-style-type: none">- Set the ELECT. MASTER switch to OFF.- Set the ENGINE MASTER switch to OFF.- Set the power lever to 0%.	
(2)	Remove the secondary power lever quadrant from the LH side console: <ul style="list-style-type: none">- Remove the top cover plate of the secondary power levers on the LH side panel (3 screws).- Remove the LH composite throttle cover side panel.- Remove slider guide screw on RH side.- Remove the throttle quadrant housing cover (6 screws).- Remove the 4 throttle quadrant mounting screws.- Remove slider guide screw on LH side.- Disconnect bowden cables.- Loosen bowden cable sleeves.- Remove power lever quadrant free of the airplane.	

B. Install the Secondary Power Levers

	Detail Steps/Work Items	Key Items/References
(1)	<p>Install the secondary power levers on the LH side console:</p> <ul style="list-style-type: none"> - Connect the bowden cables with the power levers. - Install and tighten slider guide screw on LH side. - Position the power lever assembly on the LH side panel. - Install and tighten the 4 throttle quadrant screws. - Tighten the bowden cable sleeves and ensure that they match the travel of the main power levers. - Install the throttle quadrant housing cover (6 screws). - Install and tighten slider guide screw on RH side. - Install the LH composite throttle cover side panel. - Install the secondary power lever top cover plate (3 screws). 	
(2)	<p>Make sure, that the:</p> <ul style="list-style-type: none"> - power lever operating force is below 20 N (each lever). - clutch disengagement force is between 50 – 105 N (each lever). 	<p>If the operating forces are higher, re-align or adjust bowden cable routing to reduce operating force.</p> <p>If the clutch disengagement forces are outside the defined range, replace clutch.</p>