

Attachment 14. Eurocopter Flight Manual Section 8

DCA12MA020 Maintenance Factual Report

SECTION 8.3TEST SHEETS1 GENERAL

The test sheets are intended to sum up the checks to be carried out in flight or on the ground, with rotors turning either after replacement of major components, or after an extensive operation, or further to periodic inspections.

The test sheets are in the form of reproducible sheets which can directly be filled in by the crew.

CAUTION : SINCE THESE CHECKS DO NOT FORM PART OF NORMAL HELICOPTER OPERATION, THEY SHALL BE CARRIED OUT ONLY BY QUALIFIED PERSONNEL UNDER THE OPERATOR'S RESPONSIBILITY.

LIST OF TEST SHEETS

No 0 FLIGHT REPORT

No 1 CHECKS AFTER ENGINE OR MODULE REPLACEMENT

No 2 CHECKS AFTER MRH OR FREQUENCY ADAPTER OR MAIN ROTOR BLADE REPLACEMENT

No 3 CHECKS AFTER MGB REPLACEMENT

No 4 CHECKS AFTER TRH OR TAIL ROTOR BLADE REPLACEMENT

No 4A CHECKS AFTER TAIL ROTOR DRIVE SHAFT REPLACEMENT

No 5 CHECKS AFTER OPERATIONS ON FLYING CONTROLS

No 6 CHECKS AFTER GENERATOR OR ELECTRICAL MASTER BOX REPLACEMENT

No 7 SYSTEM CHECKS

OPERATIONS ON ENGINE OR MODULE

- TESTS TO BE CONDUCTED ACCORDING TO THE COMPONENT REPLACED

MV 50.1040.00

TEST	Engine Removal/ Installation	Engine replacement	Hydro-mechanical governor replacement	Module Replacement		
				No 1-5	No 2-3	No 4
Starting Ground Run	●	●	●	●	●	●
Hover Flight		●	●			
Acceleration		●	●		●	
Bleed Valve		●			●	
Engine Condition Power Check		●		●	●	●
Ng at Max. T/O PWR or Static droop check		●	●			
Engine coast-down		●		●	●	●

SHEET No. 1	HELICOPTER AS 350	CHECKS AFTER ENGINE OR MODULE REPLACEMENT Engine starting - Ground run		
TEST PHASES AND REQUIREMENTS	RESULTS TO BE OBTAINED OR LIMITATIONS	RESULTS OBTAINED		
<p><u>ENGINE AND FUEL SYSTEM CHECK</u></p> <p>Switch off booster pump(s).</p> <p>Switch on : booster pumps one after the other, separately.</p> <p>Check injection safety system : Press the starter pushbutton at Ng equal to or more than 70 %</p>	<p>No Ng or t4 hunting.</p> <p>Correct operation of the pumps</p> <p>No engine flame-out.</p>	<input type="checkbox"/> Correct <input type="checkbox"/> Incorrect	<input type="checkbox"/> Correct <input type="checkbox"/> Incorrect	<input type="checkbox"/> Correct <input type="checkbox"/> Incorrect
<p><u>ENGINE SHUT-DOWN</u></p> <p>Check the engine generator run- down time, after 30 seconds' stabilization at Ng between 67 and 72 %</p> <p>Apply rotor brake from NR = 170 rpm</p>	<p>Run- down time from Ng = 30 % : equal to or more than 30 sec.</p> <p>Rotor stopping time : equal to or less than 25 s.</p>	<input type="checkbox"/> Correct <input type="checkbox"/> Incorrect	<input type="checkbox"/> Correct <input type="checkbox"/> Incorrect	

<p>SHEET No. 1</p>	<p>HELICOPTER AS 350</p>	<p>CHECKS AFTER ENGINE OR MODULE REPLACEMENT</p> <p>Level flight - Engine condition</p>																		
<p>TEST PHASES AND REQUIREMENTS</p>	<p>RESULTS TO BE OBTAINED OR LIMITATIONS</p>	<p>RESULTS OBTAINED</p>																		
<p><u>CHECK IN ALTITUDE</u></p> <p><u>LEVEL FLIGHT AT MAX. CONTINUOUS POWER</u></p> <p>To be performed at usual operational altitude and high enough for the discharge valve to be closed.</p> <p>All air bleeds shut off. Record parameters :</p>	<p>Refer to Limitations, in Flight Manual, SECTION 2.1.</p>	<p>Hp <input style="width: 50px;" type="text"/> OAT <input style="width: 50px;" type="text"/></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr><td style="padding: 2px;">ANg*</td><td style="width: 50px;"></td></tr> <tr><td style="padding: 2px;">Ng</td><td></td></tr> <tr><td style="padding: 2px;">t4</td><td></td></tr> <tr><td style="padding: 2px;">t4</td><td></td></tr> <tr><td style="padding: 2px;">Fuel press.</td><td></td></tr> <tr><td style="padding: 2px;">Oil press.</td><td></td></tr> <tr><td style="padding: 2px;">Oil temp.</td><td></td></tr> <tr><td style="padding: 2px;">Nr**</td><td></td></tr> <tr><td style="padding: 2px;">NR</td><td></td></tr> </table> <p style="font-size: small; margin-top: 5px;">* B2 Version ** Except BA-BB versions</p>	ANg*		Ng		t4		t4		Fuel press.		Oil press.		Oil temp.		Nr**		NR	
ANg*																				
Ng																				
t4																				
t4																				
Fuel press.																				
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Oil temp.																				
Nr**																				
NR																				
<p><u>ENGINE GOVERNOR CHECK</u></p> <p>At IAS = 65 kt :</p> <ul style="list-style-type: none"> - Recuce the pitch from MCP fo full fine pitch. - In 2 to 3 sec., increase pitch from re-synchronization (NR = 395 rpm approx.) to Max. Continuous Power. 	<ul style="list-style-type: none"> . No engine flame-out. . ENG.P light does not illuminate. . Comply with NR max. limitation. . No engine surge . Min. NR more than 360 rpm . t4 less than t4 max. 	<p style="text-align: center; margin-top: 20px;"> <input style="width: 60px;" type="text"/> Correct <input style="width: 60px;" type="text"/> Incorrect </p> <p style="text-align: center; margin-top: 20px;"> <input style="width: 60px;" type="text"/> Correct <input style="width: 60px;" type="text"/> Incorrect </p>																		

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SHEET No. 1	HELICOPTER AS 350	CHECKS AFTER ENGINE OR MODULE REPLACEMENT Level flight - Engine condition							
TEST PHASES AND REQUIREMENTS	RESULTS TO BE OBTAINED OR LIMITATIONS	RESULTS OBTAINED							
<p><u>MAX. ENGINE POWER CHECK</u></p> <p>At IAS = 55 kt, increase pitch to reach the Ng of the takeoff power.</p> <p>NOTE : In order to avoid exceeding the torque limitation, it may be necessary to climb.</p> <p>All air bleeds shut-off.</p> <p>Record parameters :</p>	<p>It must be possible to get the Ng value at max. takeoff power.</p> <p>Refer to Limitations, in Flight Manual, SECTION 2.1.</p>	<p>Hp <input type="text"/> OAT <input type="text"/></p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Ng</td> <td style="width: 40px;"></td> </tr> <tr> <td style="padding: 2px;">t4</td> <td></td> </tr> <tr> <td style="padding: 2px;">t4</td> <td></td> </tr> </table>		Ng		t4		t4	
Ng									
t4									
t4									

SHEET No. 5	HELICOPTER AS 350	CHECKS AFTER OPERATIONS ON FLYING CONTROLS Hydraulic checks	
TEST PHASES AND REQUIREMENTS	RESULTS TO BE OBTAINED OR LIMITATIONS	RESULTS OBTAINED	
<p>Start engine as prescribed in the Normal Procedures of the Flight Manual, SECTION 4.1.</p> <p>Aircraft on the ground. Full low pitch, collective lever locked. Test accumulators of main servo-units : Press the HYD TEST pushbutton.</p> <p>Move the cyclic stick in the longitudinal, then in the lateral axis by $\pm 10\%$ of the total stroke (± 25 mm).</p> <p>Set HYD TEST back to Normal.</p> <p>Shut off hydraulic pressure on collective lever.</p> <p>Collective lever hydraulic switch reset to ON.</p>	<p>HYD warning light goes out for NR : less than 200 rpm (warm) less than 110 rpm (cold)</p> <p>HYD warning light comes on. The aural warning sounds.</p> <p>The loads must not appear before 3 or 4 motions are made.</p> <p>The aural warning stops. HYD warning light goes out.</p> <p>HYD warning light comes on.</p> <p>The loads appear immediately at the controls.</p> <p>The loads at the pedals remain weak (accumulator).</p> <p>The aural warning keeps sounding as long as HYD warning light stays on (3 to 4 sec).</p>	<p><input type="checkbox"/></p> <p>Correct</p> <p><input type="checkbox"/></p> <p>Correct</p> <p><input type="checkbox"/></p> <p>Correct</p> <p><input type="checkbox"/></p> <p>Correct</p> <p><input type="checkbox"/></p> <p>Correct</p>	<p><input type="checkbox"/></p> <p>Incorrect</p> <p><input type="checkbox"/></p> <p>Incorrect</p> <p><input type="checkbox"/></p> <p>Incorrect</p> <p><input type="checkbox"/></p> <p>Incorrect</p> <p><input type="checkbox"/></p> <p>Incorrect</p> <p><input type="checkbox"/></p> <p>Incorrect</p>

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<p>SHEET No. 5</p>	<p>HELICOPTER AS 350</p>	<p>CHECKS AFTER OPERATIONS ON FLYING CONTROLS Check of the low pitch stop adjustment</p>
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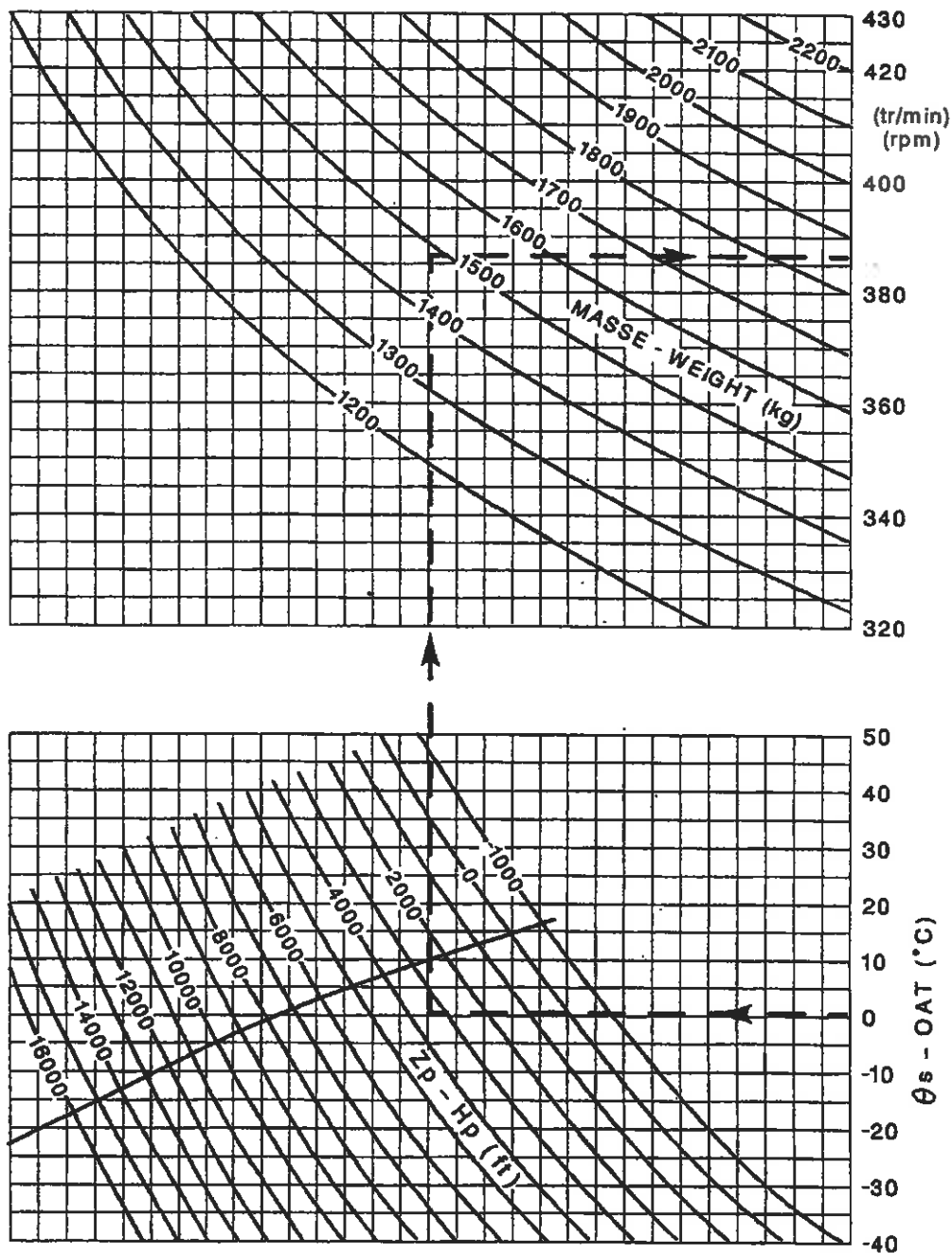


FIGURE 1

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SHEET No. 5	HELICOPTER AS 350	CHECKS AFTER OPERATIONS ON FLYING CONTROLS Level flight at Max. Continuous Power																		
TEST PHASES AND REQUIREMENTS	RESULTS TO BE OBTAINED OR LIMITATIONS	RESULTS OBTAINED																		
Level flight at Max. Continuous Power Altitude equal to or less than 3000 ft Record parameters : Check performance data :	Refer to Limitations in Flight Manual, SECTION 2.1. <p style="text-align: center;">REMINDER : NR : 393 rpm \pm 1</p> IAS : Refer to Flight Manual SECTION 5.2 (BA, BB, B1, L1) or SECTION 10 (B2). Vibratory level	Hp <input style="width: 50px;" type="text"/> OAT <input style="width: 50px;" type="text"/> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr><td style="padding: 2px;">ΔNg^*</td><td style="width: 50px;"></td></tr> <tr><td style="padding: 2px;">Ng</td><td></td></tr> <tr><td style="padding: 2px;">t4</td><td></td></tr> <tr><td style="padding: 2px;">$\downarrow \uparrow$</td><td></td></tr> <tr><td style="padding: 2px;">Nr**</td><td></td></tr> <tr><td style="padding: 2px;">NR</td><td></td></tr> <tr><td colspan="2" style="padding: 2px;">* B2 Version</td></tr> <tr><td colspan="2" style="padding: 2px;">** Except BA-BB versions</td></tr> <tr><td style="padding: 2px;">Fuel contents</td><td></td></tr> </table> IAS <input style="width: 50px;" type="text"/> <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Correct <input type="checkbox"/> Incorrect </div>	ΔNg^*		Ng		t4		$\downarrow \uparrow$		Nr**		NR		* B2 Version		** Except BA-BB versions		Fuel contents	
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