Attachment 14. Eurocopter Flight Manual Section 8

DCA12MA020 Maintenance Factual Report

SECTION 8.3

TEST SHEETS

1 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

TEST	Removal/ replace mechanical		Module Replacement			
	Installation	ment	governor 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				•	•	•

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SHEET No.	HELICOPTER			R ENGINE OR MODULE LACEMENT
1	AS 3	50	Engine starting - Ground run	
TEST PHASI REQUIREM		RESULTS TO BE OBTAINDED OR LIMITATIONS		RESULTS OBTAINED
ENGINE START	<u>ING</u>			
Comply with the Procedures of the Manual, SECTIO	Flight			HpOAT
- Battery voltage		. Volt	age = 25 V Approx.	U:
- Booster(s) pump	ON	. Pres	sure greater than 0.4 bar	Pressure:
Starter ON		. Batt	ery voltage ≥ 18 V	U:
Check:		(5 sec. Other 795° (865° (The G	340° C . max. above 775° C) versions: C (less than 5 sec.) EN. light goes out Ng is 50 %.	Correct Incorrect
Record parameter idle rating:	s at flight	Torquarc	NG.P. light goes out Ng is 70 %. emeter ponter in green	Correct Incorrect ANg* Ng t4 Fuel press. Oil press. Oil temp. Nf** NR * B2 version ** Except BA-BB versions
		Synchronization of NR/Nf pointers: ±3 rpm		Correct Incorrect

SHEET No.	HELICOP	TER		ER ENGINE OR	MODULE		
1	AS 3	50	REPLACEMENT Engine starting - Ground run				
TEST PHASE REQUIRES		RESULTS TO BE OBTAINDED OR LIMITATIONS		RESULTS OBTAINED			
ENGINE AND F	UEL K						
Switch off booste	r pump(s).	No N	g or t4 hunting.	Correct	Incorrect		
Switch on: booster pumps of the other, separa		Corre pump	ct operation of the	Correct	Incorrect		
Check injection so system: Press the starter p Ng equal to or mo	ushbutton at	No en	gine flame-out.	Correct	Incorrect		
	i		5				
ENGINE SHUT-	DOWN						
Check the engine a run-down time, a 30 seconds' stabili at Ng between 67	ifter ization		own time from 30 % : equal to or more 0 sec.	Correct	Incorrect		
Apply rotor brake NR = 170 rpm	from	Rotor or less	stopping time : equal to than 25 s.	Correct	Incorrect		

SHEET No.	HELICOP	TER	CHECKS AFT			DULE
1	AS 3	50	ı	PLACEME		
TEST PHAS		RESULTS TO BE OBTAINDED OR LIMITATIONS		RESULTS OBTAINED		AINED
HOVER IGE (6 ft)					
All air bleeds shu Record parameter		Flie	er to Limitations, in ht Manual, CTION 2.1.	Нр	☐ OAT	
				ANg*]
				Ng]
				14		
				4		-
				Puel press. Oil press.		1
				Oil temp.		
				Nf++		
	9			NR		1 1
				* B2 Version ** Except BA-	BB versions	
į			2	Fuel contents		
ENGINE ACCEL	ERATION					
Aircraft on the great Increase pitch from pitch to hover IGH within 2 to 3 sec.	n full low	- Min. than	engine surge . transient NR : more . 360 rpm ss than max . t4	Corre	et Ir	acorrect
	:					

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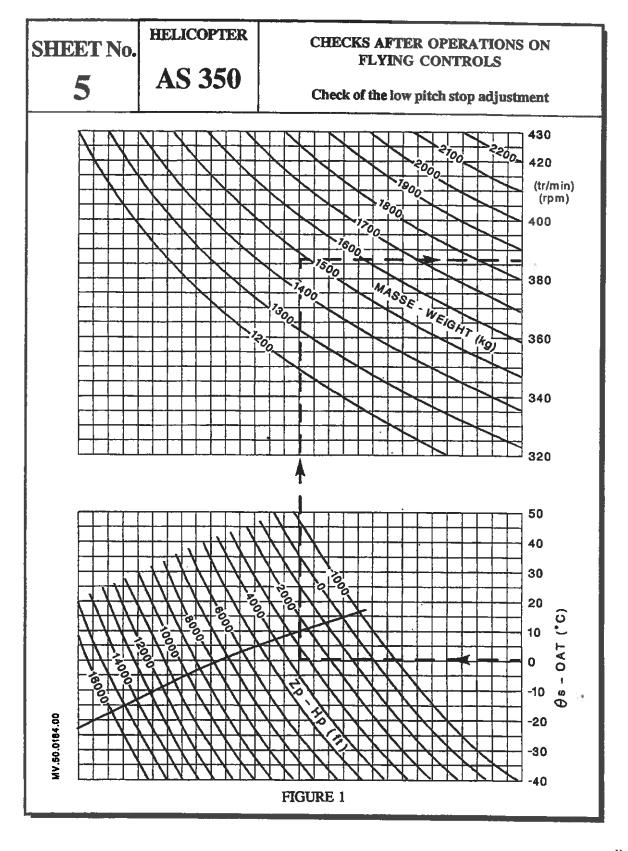
SHEET No.	HELICOP	TER	1		OR MODULE		
1	AS 3	50	REPLACEMENT Level flight - Engine condition				
TEST PHASI REQUIREM		RESULTS TO BE OBTAINDED OR LIMITATIONS		RESUL	IS OBTAINED		
LEVEL FLIGHT CONTINUOUS P	AT MAX. OWER						
Altitude equal to of 3000 ft. All air bleeds shut Engine condition of comply with the F SECTION 4.2. Record parameters	off. check : light Manual,		r to Limitations, in Flight ual, SECTION 2.1.	Hp A Ng* Ng t4 Fuel press.	OAT		
		Engine	REMINDER: NR = 393 rpm ± 1 condition: refer to Manual, SECTION 4.2.	Oil press. Oil temp. Nf** NR *B2 Version **Except BA-BI			
BLEED VALVE OPERATION CH IAS: 55 kt Actuate the collect lever to obtain clos opening of the blee	tive pitch	Mainte Refer t	URBOMECA enance Manual to Flight Manual, ION 4.1.	Correct	Incorrect		

SHEET No.	HELICOP	TER		ER ENGINE OR MODULE PLACEMENT		
1	AS 3	50		ht - Engine condition		
TEST PHASI REQUIREM		(RESULTS TO BE OBTAINDED OR LIMITATIONS	RESULTS OBTAINED		
CHECK IN ALTI	TUDE					
LEVEL FLIGHT CONTINUOUS P	AT MAX. OWER		52			
To be performed a operational altitud enough for the discussive to be closed.	e and high charge					
All air bleeds shut Record parameters ENGINE GOVER CHECK At IAS = 65 kt:	S:	in Flig	to Limitations, tht Manual, ION 2.1.	ANg* Ng t4 Fuel press. Oil temp. Nf** NR *B2 Version ** Bxcept BA-BB versions		
- Recuce the pitch fo full fine pitch.		ENC	ngine flame-out. i.P light does not inate. ply with NR max. ation.	Correct Incorrect		
- In 2 to 3 sec., inc from re-synchron (NR = 395 rpm ar Max. Continuous	ization prox.) to	. Min.	ngine surge NR more than 360 rpm ss than t4 max.	Correct Incorrect		

SHEET No.	HELICOP	TER	CHECKS AF	TER ENGINE OR MODULE
1	AS 3:	50		PLACEMENT
			Level fligh	ht - Engine condition
TEST PHASI REQUIREM MAX. ENGINE	IENTS	RESULTS TO BE OBTAINDED OR LIMITATIONS		RESULTS OBTAINED
CHECK	OWEK			
At IAS = 55 kt, inc to reach the Ng of power.	crease pitch the takeoff		3	
NOTE: In order to exceeding limitation necessary	g the torque , it may be			
All air bleeds shut-	off.			
Record parameters	:	It must value a	t be possible to get the Ng tt max. takeoff power.	Hp OAT
		in Flig	o Limitations, ht Manual, ION 2.1.	Ng t4
¥1	į			
ar				
Ø.				

SHEET No.	HELICOPTER AS 350			ER OPERATIO G CONTROLS	NS ON	
TEST PHAS		RESULTS TO BE OBTAINED OR LIMITATIONS		RESULTS OBTAINED		
Start engine as pr the Normal Proce Flight Manual, SE	dures of the	for N less t	warning light goes out R: han 200 rpm (warm) han 110 rpm (cold)	Correct	Incorrect	
Aircraft on the gro Full low pitch, coll locked. Test accumulators servo-units: Press the HYD TE pushbutton.	of main		warning light comes on. ural warning sounds.	Correct	Incorrect	
Move the cyclic stillongitudinal, then axis by ± 10 % of the stroke (±25 mm).	in the lateral		oads must not appear e 3 or 4 motions are	Correct	Incorrect	
Set HYD TEST ban Normal.	ck to		aural warning stops.) warning light goes out.	Correct	Incorrect	
Shut off hydraulic collective lever.	pressure on	The le	warning light comes on. pads appear immediately controls.	Correct	Incorrect	
Collective lever by switch reset to ON	Collective lever hydraulic witch reset to ON.		pads at the pedals remain (accumulator). ural warning keeps ing as long as HYD ag light stays on 4 sec).	Correct	Incorrect	

CITETE N.	HELICOP	TER	CHECKS AFTE	ER OPERATIONS	ON	
SHEET No.	A CI (2)	= 0	FLYING CONTROLS			
5	AS 3	50	Check of the low	v pitch stop adjustn	nent	
TEST PHASI REQUIREM	- '	RESULTS TO BE OBTAINED OR LIMITATIONS		RESULTS OF	BTAINED	
ADJUSTMENT OF THE LOW PITCH STOP Altitude lower than 5000 ft Perform autorotation with collective lever against low pitch stop. IAS: 65 kt			LIMITATIONS: NR: 430 rpm.			
to be o	btained at full	l low pi	de values which allow an tch. ow control lever.	NR between 395 and	d 415 rpm	
Record the follow parameters:	ing		compliance with the scomputed by means of e 1 + 0 rpm + 10	Hp OAT Fuel contents Computed weight NR obtained Design NR		



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SHEET No.	HELICOPTER AS 350		FLYING CONTROLS		
TEST PHASI		RESULTS TO BE OBTAINED OR LIMITATIONS		RESULTS OBTAINED	
Level flight at Max Power Altitude equal to c 3000 ft					
Record parameters	s:	Refert Manua	to Limitations in Flight II, SECTION 2.1.	Hp OAT	
0	÷		<u>REMINDER</u> : NR: 393 rpm ± 1	A Ng* Ng 14 Nf** NR * B2 Version ** Except BA-BB versions Fuel	
e				contents	
Check performance	e data :	S	Lefer to Flight Manual ECTION 5.2 (BA, BB, B1, L1) or SECTION 0 (B2).	IAS	
		Vibrato	ory level	Correct Incorrect	
ů.					