

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24MA111

AIRWORTHINESS

Group Chair's Factual Report

September 3, 2024

Table of Contents

A. ACCIDENT	3
B. AIRWORTHINESS GROUP	3
C. SUMMARY	3
D. DETAILS OF THE INVESTIGATION	4
1.0 HELICOPTER INFORMATION	4
1.1 Accident Helicopter Information	5
1.2 Maintenance Information.....	6
1.2.1 Radar Altimeter	8
1.2.2 Equipment Discrepancy Reporting and Records	9
2.0 WRECKAGE DOCUMENTATION	11
2.1 Fuselage Structure.....	13
2.1.1 Fuselage Examination	14
2.2 Flight Control System	14
2.2.1 Flight Control Examination.....	15
2.3 Transmission and Main Rotor System	15
2.3.1 Transmission and Main Rotor Examination	16
2.4 Tail Rotor Drive and Fenestron System.....	16
2.4.1 Tail Rotor Drive and Fenestron Examination.....	17
2.5 Engine Description	18
2.5.1 Engine Examination.....	19
E. LIST OF ATTACHEMENTS	21

A. ACCIDENT

Location: Halloran Springs, CA
Date: February 9, 2024
Time: 2208 PST
0508 UTC
Helicopter: Airbus Helicopters EC 130B4, N130CZ

B. AIRWORTHINESS GROUP

Group Chair	Van S. McKenny IV National Transportation Safety Board Washington, District of Columbia
Group Member	Seth Buttner Airbus Helicopters Grand Prairie, Texas
Group Member	Bryan Larimore Safran Helicopter Engines Grand Prairie, Texas
Group Member	Jeremy Knox Federal Aviation Administration Riverside, California

C. SUMMARY

On February 9, 2024, about 2208 Pacific standard time, an Airbus Helicopters EC130B4 helicopter, N130CZ, was destroyed when it was involved in an accident near Halloran Springs, California. The two pilots and four passengers sustained fatal injuries. The helicopter was operated as a Title 14 Code of Federal Regulations as a Part 135 on-demand charter flight. The helicopter departed Palm Springs, California, with a destination of Boulder City, Nevada. Passengers were Nigeria citizens involved in the country's banking industry. Weather conditions were reported as rain and snow mix in dark night conditions in a remote desert area.

The Airworthiness group arrived on-scene of the accident on February 11, 2024, at 0900 local. The terrain was mountainous high desert populated with desert scrub brush and small cacti. The wreckage was highly fragmented, extended along a bearing of 120° magnetic for approximately 100 yards (Figure 1). The initial point of impact was a small crater 12 feet by 10 feet and 1.5 feet deep. The right-side skid step was protruding upward at a 45° angle at the most eastern edge of the impact crater. Debris in the crater consisted of fuel tank fragments, cockpit wiring, crushed

cabin floor fragments, and right-side skid fragments. Immediately to the right of the impact crater there was a ground divot consistent in size and shape of the rotor head, with 2 rotor blade impact marks radiating from the divot.

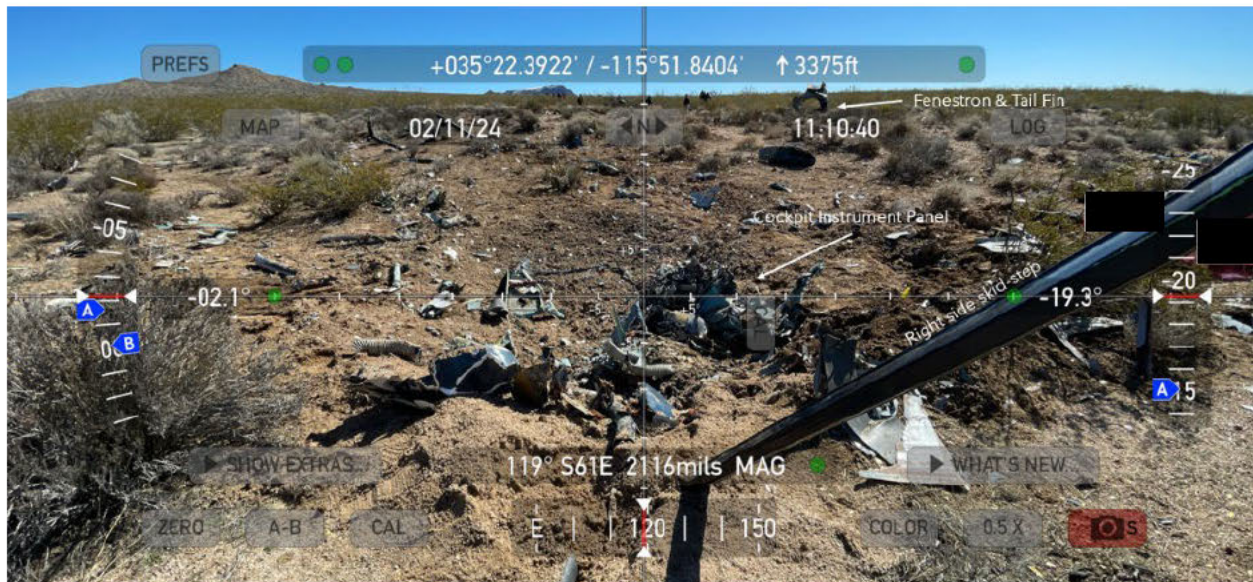


Figure 1. Accident scene wreckage debris viewed from the initial point of ground impact.

D. DETAILS OF THE INVESTIGATION

1.0 Helicopter Information

The Airbus Helicopters EC 130B4 has a three-bladed main rotor system that provides helicopter lift and thrust (Figure 2). A 10-bladed fenestron tail rotor system provides anti-torque and directional control. The helicopter flight controls are hydraulically assisted by a dual hydraulic system. The helicopter was equipped with a skid-type landing gear and a Safran Helicopter Engines Arriel 2B1 turboshaft engine. The EC 130B4 helicopter is type certificated under Federal Aviation Administration (FAA) Type Certificate Data Sheet (TCDS) No. H9EU as a normal category (14 CFR Part 27) helicopter.

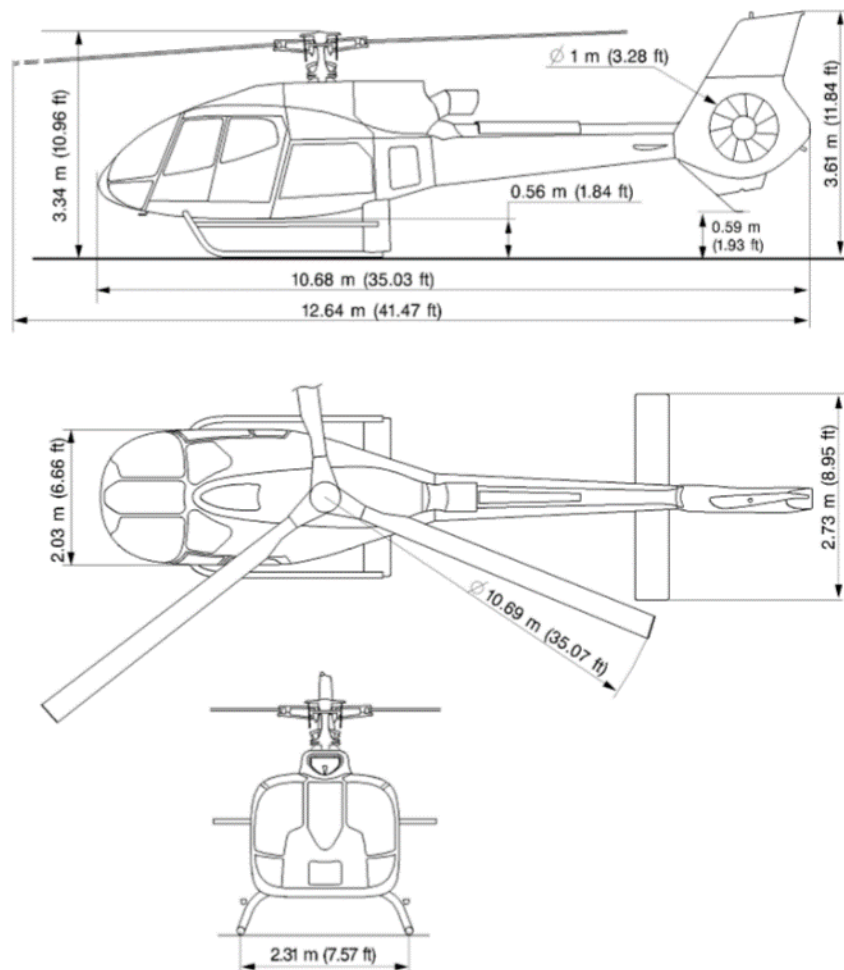


Figure 2. EC 130B4 principal dimensions (Source: Airbus Helicopters).

1.1 Accident Helicopter Information

The accident helicopter, an Airbus Helicopters EC 130B4, serial number (SN) 4060, was manufactured in 2006 by Airbus Helicopters (previously Eurocopter) (Figure 3). FAA registration records document show that the helicopter's Indonesian registration, PK-CFZ, was cancelled on August 24, 2016. The helicopter was sold by Strata Aviation LTD to Integrity Aircraft Title Holdings, LLC, on September 2, 2016, and registered as N130CZ on September 15, 2016. The helicopter was sold by Integrity Aircraft Title Holdings, LLC, to Orbic Air, LLC on March 16, 2022.

FAA airworthiness documents record that the following equipment changes from the original manufactured configuration were installed at the time of the accident: 1) the KHF950 comm system had been removed and replaced with a Garmin GTN 650Xi nav-comm, 2) the Bendix King KR87 ADF system had been removed, a FreeFlight TRA3500 radar altimeter had been installed, 3) the GTX330ES had been replaced with at GTX345 transponder, 4) the battery had been replaced

with a Concord RG350 lead-acid battery, and 5) the carpet had been replaced. The following windows had been replaced with Tech-Tool Plastics windows; left hand cabin aft door, pilot, copilot, right hand aft cabin door, left and right skylight windows. The aircraft data plate was relocated from the front center interior instrument pedestal to the outer right side of the fuselage aft of the main cabin door.



Figure 3. Undated photo of the accident helicopter (source: internet).

1.2 Maintenance Information

The following table is a summary of the airframe and engine maintenance records for approximately 500 operational hours prior to the accident (Table 1).

Total aircraft hours: 4,778.8

Total engine hours: 5,221.8

Table 1. Maintenance Summary

Date	Aircraft hours	Maintenance Activity
2/9/2024	4,778.8	Main rotor (MR) pin inspection, 7-day/10-hour inspection, MR pitch rod Airworthiness Directive, Engine 300-hour inspection, Radar Altimeter (RadAlt) repair (repaired coax, reinstalled antennas), Unibal repair, Instrument lights inoperative and repaired, Oil cooler leak repair, Removed GNS 430 and installed GTN650Xi, Removed GTX300 and installed GTX 345. Ground run and test flight completed.

10/13/2023	4,740.2	RadAlt inoperative - removed Unit TRI-40 Night Vision Goggles (NVG) installed different repaired unit. Horizontal Situation Indicator (HIS) precession- no defects noted, air conditioning system recharged.
8/4/2023	4,692.2	Removed AFM-130 mount. Weight and balance revised
8/1/2023	4,683.2	Installed AMF-130 utility mount (camera mount beam) with Shotover F1 camera. Weight and balance revised.
7/28/2023	4,678.1	150-hour/12-month inspection, 1200-hour/48-month inspection MR pin inspection, Tail rotor gearbox (TRGB) & main rotor gearbox (MRGB) chip detector check, Left hand cabin door AD, MR pitch rod screw AD (2202-01-01), Removed and replaced tail rotor (TR) sliding bushings, Removed and replaced TR ring gages, Removed and replaced TR interior and exterior hub bearings, tail rotor 2 hour to 20 hour torque check, TRGB 2-20 hour attach bolt insp. Engine 150-hour inspection. Engine accessory gear box (AD 2016-25-13) Service Bulletin (SB) 292-72-2823 start electro valve. Ground run and test flight.
6/12/2023	4,647.7	100-hour TRGB & MGB chip det check.
4/21/2023	4,621.7	Intermittent Gen Light. Removed and replaced generator
1/24/2023	4,550.9	150-hour inspection, 600-hour inspection, MR blade pin inspection, TRGB & MGB chip det check, Left hand cabin door AD, MR pitch rod screw AD, RadAlt intermittent -reconfigured power wire to 3A circuit breaker. Fenestron short shaft balance verified. Engine 150-hour and 300-hour inspection. Engine oil change SB 292-72-2823 Electro valve. Ground run & test flight.
11/21/2022	4,503.8	Removed AFM130-1 utility mount F1 camera system. Weight and balance amended.

11/17/2022	4,495.1	300-hour swashplate inspection, 300-hour starter-generator inspection, TRG & MGB chip detector check, MR pitch rod screw AD, RadAlt intermittent - Antenna not grounded to frame, right hand hydraulic filter replaced. Ground run and flight check.
8/17/2022	4,409.7	150-hour/12-month inspection. MR blade pin inspection, TRG & MRG chip detector check, Left hand cabin door AD, MR pitch rod screw AD, ground run and flight check.
7/27/2022	4,382.2	AD 2020-25-11 (sliding door support assembly) complied with. AD 2022-11-28 ¹ complied with.
6/22/2022	4,343.6	MGB oil and filter changed, TRGB oil changed, TRG & MGB chip detector checked, MR pitch rod screw AD, Installed AFM-130 utility mount Shotover camera system mounted. Removed and replaced RadAlt with overhauled unit.
4/20/2022	4,293.6	Removed and replaced starter generator, removed and replaced TRGB, TR balance, MR swashplate unibal reshimmed, Installed overhauled tail rotor gearbox. Ground run and flight test.
4/12/2022	4,262.9	150-hour/12-month inspection, MR blade pin inspection, 300-hour swashplate inspection, 300-hour starter-generator inspection, left hand cabin sliding door AD, 165-hour & 660-hour inspection. Ground run & flight test.

1.2.1 Radar Altimeter

The maintenance records showed four RadAlt issues between June 2022 and the accident flight. During the flight from Camarillo, CA, (KCMO) to Burbank, CA, (KBUR) the pilot texted the Director of Maintenance (DoM)² reporting that the radar altimeter was not working. After the helicopter arrived at Burbank, a company

¹ AD 2022-22-28 does not exist in the FAA Airworthiness Directive database. The Director of Maintenance stated in an email that the entry was a typographical error. The correct AD number should be 2022-11-08.

² Transcript of interview: Stephen Cranswick, Director of Maintenance, February 9, 2024.

mechanic³ troubleshooted the radar altimeter but could not get it to function. According to the mechanic, both the pilot and copilot were aware that the radar altimeter was inoperative before they departed with passengers on the contracted charter flight.

1.2.2 Equipment Discrepancy Reporting and Records

The aluminum document storage clipboard (referred to as the “maintenance tin” or “tin”) that contained helicopter and maintenance information onboard the helicopter was located intact in the wreckage debris area. A catalog of the contents was as follows: 1) flight log, 2) recurring maintenance compliance log, 3) dual control removal/installation log, and 4) aircraft status report (report created January 11, 2024). Not present in the maintenance tin was an Aircraft Discrepancy Log.

The Director of Maintenance (DoM) stated that if there was an aircraft discrepancy identified by the flight crew that it would be reported via text message or phone call by the pilot to the DoM. The DoM would then instruct the flight crew how to proceed. There was no written (paper) record kept of these discrepancies. If the discrepancy required maintenance action, the maintenance department would make the repair and enter it into the internet-based tracking system. Recent maintenance would be included in the aircraft status sheet that goes into the aircraft tin. Typically, the pilots do not review the maintenance records before accepting an aircraft for flight. If there was any recent maintenance performed, the DoM would convey the work done to the pilot verbally.⁴

The Orbic Air General Operations Manual (GOM) (Revision 11), Section F, Chapter 6, states that when a pilot finds a defective piece of equipment they will:

“Check the Aircraft Discrepancy Log⁵ in the aircraft and see if the item has been previously reported and properly deferred. If the item has not been previously written up, the Pilot-in-Command (PIC) will record the pertinent information on the company Aircraft Discrepancy Record. The Aircraft Discrepancy Log will remain in the aircraft until the affected part is repaired or replaced and an entry to that effect is made in the aircraft permanent maintenance records.”

Chapter 6.1 of the Orbic Air GOM lists the procedures for Aircraft Discrepancy Log Entry:

³ Transcript of interview: Luke Baldwin, Mechanic, Orbic Air, February 9, 2024.

⁴ Transcript of interview: Steven Cranswick, Director of Maintenance, Orbic Air, February 9, 2024.

⁵ Orbic Air form F-110.

1. Aircraft Discrepancy Log is located in the back of the respective aircraft clipboard.
2. Note date of discrepancy.
3. Note Hobbs Time, and aircraft Total Time.
4. Write a descriptive notation of failed item, include your name and certificate #.
5. Refer to MEL⁶ for that aircraft, for deferral requirements.
6. If able to defer, complete 'Deferral Data' section.
7. Note the Deferred Maintenance Item (DMI) # from the MEL System & Sequence.
8. Complete O or M procedure per MEL.
9. Include name and certificate number for completion of deferral.

Title 14 CFR Part 135.65, Reporting mechanical irregularities.

- (a) Each certificate holder shall provide an aircraft maintenance log to be carried on board each aircraft for recording or deferring mechanical irregularities and their correction.
- (b) The pilot in command shall enter or have entered in the aircraft maintenance log each mechanical irregularity that comes to the pilot's attention during flight time. Before each flight, the pilot in command shall, if the pilot does not already know, determine the status of each irregularity entered in the maintenance log at the end of the preceding flight.
- (c) Each person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, powerplant, propeller, rotor, or applicable, shall record the action taken in the aircraft maintenance log under the applicable maintenance requirements of this chapter.
- (d) Each certificate holder shall establish a procedure for keeping copies of the aircraft maintenance log required by this section in the aircraft for access by appropriate personnel and shall include that procedure in the manual required by Sec. 135.21.

FAA Data Collection Tool (DCT) data for Orbic Air, details the surveillance activities FAA inspectors have performed. The DCT record shows that the Assistant Principal Maintenance Inspector (PMI) for Orbic Air, on July 27, 2023, recorded that Orbic Air was in compliance with Part 135.65 in accordance with 8900.1 General Inspector Guidance and Information, chapter 31, section 5, "sections 121.563 and

⁶ MEL – Minimum Equipment List
AIRWORTHINESS
GROUP CHAIR'S FACTUAL REPORT

135.65 require the PIC to ensure that it has entered all mechanical irregularities occurring during flight time in the maintenance log at the end of that particular flight time.”

2.0 Wreckage Documentation

The wreckage was located a half mile south of Interstate 15 (I-15), 70 miles southwest of Las Vegas, Nevada, in mountainous desert terrain. The accident site was about 1.4 miles from the last recorded Spider Tracks⁷ data point (Figure 4). Table 2 lists the latitude and longitude of the major airframe components.

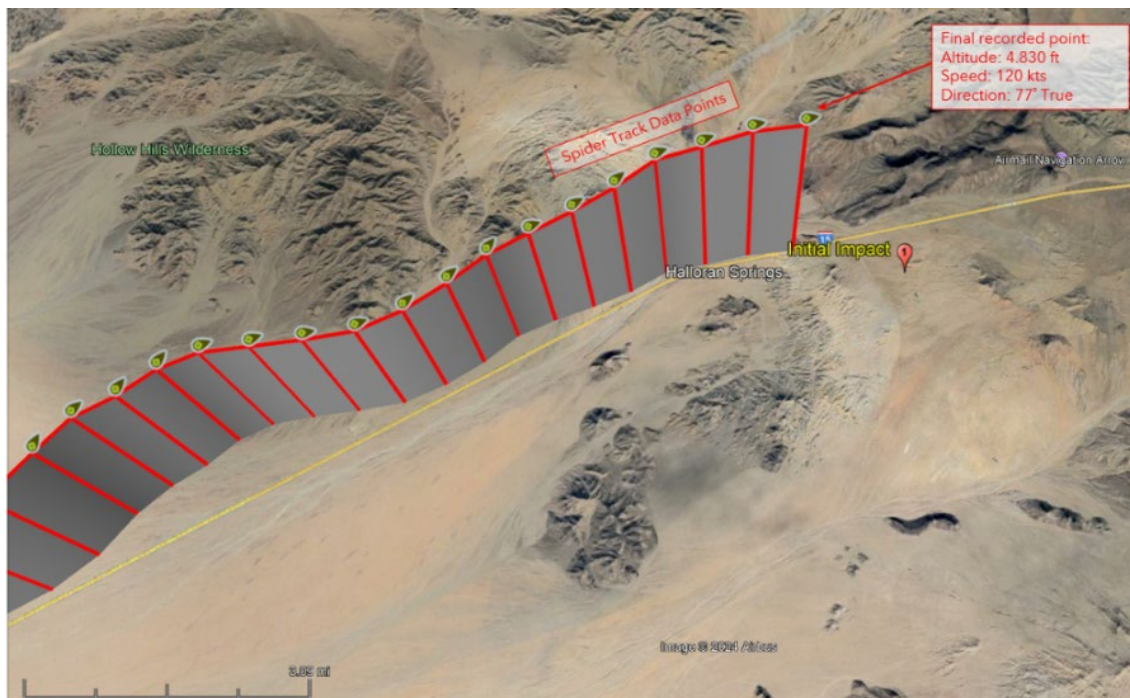


Figure 4. Accident geographic location relative to the final Spider Tracks data point.

The initial point of ground impact was an area of disturbed earth with fuselage and cockpit debris imbedded into it. The initial impact point featured the helicopter’s right-side step, which is normally mounted to the landing skid cross tubes, stuck into the ground at a 45° angle (Figures 6 and 7).

⁷ Spider Tracks – Spider Tracks is a commercial real time flight following system.
AIRWORTHINESS
GROUP CHAIR'S FACTUAL REPORT



Figure 5. Overhead view of the accident site and wreckage distribution.



Figure 6. Overhead view of the initial impact area.



Figure 7. Right side skid step imbedded into the ground at the initial impact area.

Table 2. Location of major airframe components

Item	Latitude	Longitude
Initial Impact	035° 22.3922'	-115° 51.8408'
Fenestron	035° 22.3785'	-115° 51.8298'
Engine	035° 22.3771'	-115° 51.8138'
Rotor Head	035° 22.3691'	-115° 51.7941'

2.1 Fuselage Structure

The helicopter structure comprises the main fuselage, tail boom and empennage, and skid-type landing gear. The main fuselage comprises: the [central] body structure, primarily supporting the fuel tank, main transmission, and landing gear; the rear structure, primarily supporting the engine and baggage compartment; the bottom structure, primarily supporting the main cabin; and the canopy, primarily supporting the doors and windows. The tail boom is attached to the rear structure and supports the fenestron drive shafts, horizontal stabilizer, and fenestron.

2.1.1 Fuselage Examination

The fuselage was highly fragmented. The cockpit and cabin were completely destroyed. The aft section of the fuselage (center fuel tank area) and the forward tail boom section had fire damage, was coated with soot, and crushing signatures favoring the right side. The engine laid on top of the center section and the tail rotor drive was connected. The fenestron tail section with tail fin and horizontal stabilizers had separated from the forward part of the tail boom. The right horizontal stabilizer exhibited aft crushing damage; the left horizontal was generally undamaged.

The skid type landing gear was fractured into 7 main pieces (Figure 8). Two sections of the forward right side of the right landing gear were imbedded into the terrain at the initial impact point.



Figure 8. Landing skids.

The cockpit and cabin were highly fragmented. All seats (7) had separated from structure, were fragmented, and were distributed about the debris field. The instrument panel was located near the engine, but all the instruments were missing from their mounting cutouts. The VEMD (vehicle engine multifunction display) was recovered and had been crushed with multiple impact signatures. A radar altimeter avionics box was located in the initial impact area. The pilot's side cyclic and collective were identified near the engine. The collective twist grip was in the FLIGHT position. The copilot's cyclic and collective were not located in the debris field.

2.2 Flight Control System

The cyclic and collective control inputs are transmitted from the pilot controls to the stationary swashplate through a series of push-pull tubes and bell cranks. The main rotor cyclic and collective controls are hydraulically assisted via three dual-cylinder main rotor servo controls: fore/aft, right-roll, and left-roll. Each main rotor

servo control comprises two cylinders that are stacked in tandem. The main rotor servo controls are mounted to the transmission upper housing and the stationary swashplate. The pedal control inputs are transmitted directly to the fenestron without hydraulic assistance, via a control cable. The pilot seat is normally located on the left side of the helicopter.

2.2.1 Flight Control Examination

The flight control tubes and linkages leading up to the flight control servos were highly fragmented and continuity could not be verified. All three flight control servos were accounted for. Two servos remained attached to the stationary swashplate, the third had separated at both ends. All three pitch control links were attached at the swashplate and the blade pitch change horns. Portions of the antitorque pedal control rods and torque tubes were identified. The tail rotor push-pull rod was separated and broken in multiple locations and were scattered about the debris field.

2.3 Transmission and Main Rotor System

Power from the engine reduction gearbox is transferred to a power transmission shaft, the forward end of which is connected to a freewheel shaft. The freewheel shaft is connected to the engine-to-transmission drive shaft (also known as the "main transmission input driveshaft") via a splined adapter. Flexible couplings on both ends of the engine-to-transmission shaft allow for minor misalignment. The engine-to-transmission shaft is connected to the main transmission input pinion pulley flange, which drives the main transmission input pinion, the aft hydraulic pump, and air conditioning unit, the latter two of which are belt driven via the pulley flange. The main transmission contains a single-stage sun and planetary gear system that turns the main rotor shaft. The Starflex is attached to the main rotor shaft via 12 bolts. The main transmission is attached to the airframe via four rigid suspension bars and an anti-torque bi-directional crossbeam with laminated pads installed between the lower transmission housing and the airframe.

The three main rotor blades attach to the Starflex via blade sleeves (two sleeves per blade). An elastomeric bearing connects the inboard end of the sleeves to the Starflex, while an elastomer block (also known as the "frequency adapter") is located near the outboard end of the sleeves and is attached to the outboard end of each Starflex arm. The blade is secured to the outboard end of the sleeve via blade pins. The elastomeric bearing allows for the blade to move in the flapping, lead-lag, and pitch change directions. The Starflex arms are flexible in flapping, but rigid in lead-lag and pitch change directions. The frequency adapter is flexible in lead-lag, but rigid in the flapping and pitch change directions. Each set of main rotor blades, sleeves, and pitch change links are assigned a color for identification purposes; the assigned colors are 'blue', 'red', and 'yellow'.

2.3.1 Transmission and Main Rotor Examination

The upper transmission section (epicyclic), mast, and rotor head remained as a unit (Figure 9). The main rotor transmission case (magnesium) was fragmented or consumed by the post-crash fire. The main drive/bull gear was located 15 yards south of the rotor head. Both stationery and drive scissors remained attached. The transmission drive quill had separated from the transmission case. The drive shaft connecting flange was attached but the drive shaft had fractured at the base in bending overload.

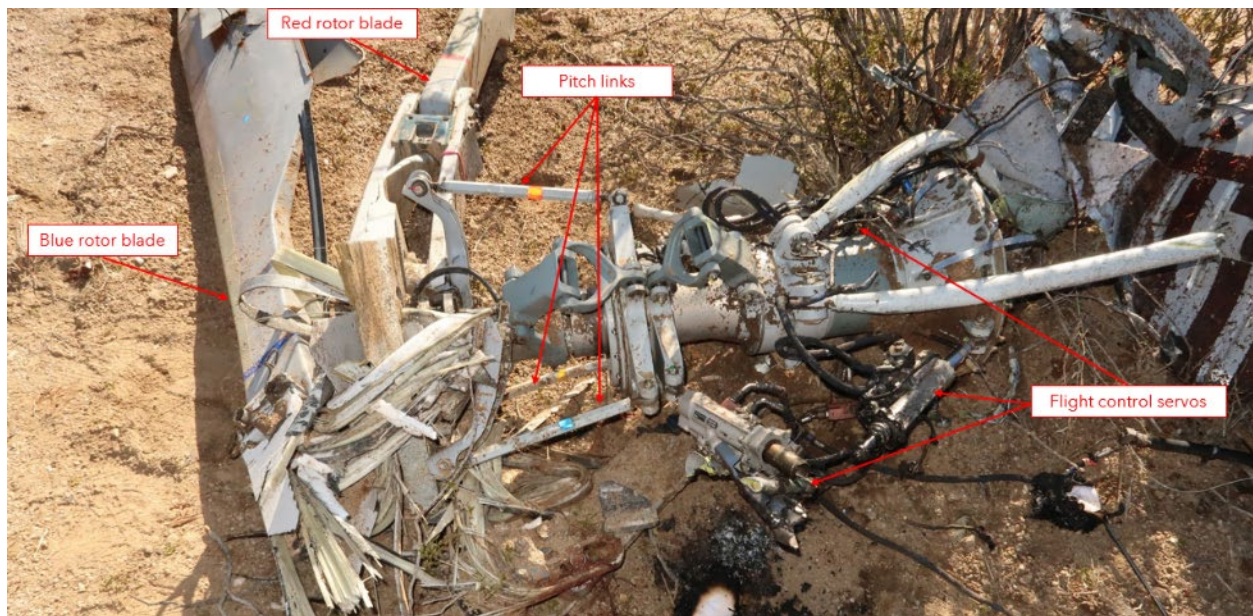


Figure 9. Upper transmission section, upper flight controls, main rotor head.

The main rotor head was attached to the transmission mast. All three main rotor blade sleeves were present with the red and blue-colored blades attached at the sleeves to the hub/Starflex area. The red-colored blade had leading edge damage, the blade tip was broomstrawed, the blade spar was fractured in 2 locations, and blade trailing edge body was separated from the spar. The blue-colored blade had leading edge damage, the spar was fractured at one location, and there was blade trailing edge body separation from the spar. The yellow-colored blade root was attached to the Starflex sleeve. A 12-foot burned section of the yellow blade was located next to the engine (approximately 20 yards away) and had leading edge damage, the spar was fractured at three locations, and there was blade trailing edge body separation from the spar. All three main rotor blades exhibited powered impact signatures, and all three blade tips were accounted for.

2.4 Tail Rotor Drive and Fenestron System

Engine power is transferred to the fenestron gearbox via two fenestron drive shafts: forward and aft. The forward fenestron drive shaft, made of steel, is connected

to a flange connected to the aft end of the freewheel shaft. The aft fenestron drive shaft, made of aluminum, connects to the forward fenestron drive shaft via a splined, steel flange adapter. Flexible couplings are located between each drive shaft attachment point to allow for minor misalignment. Five ball bearings (also known as “hanger bearings”), mounted within support brackets along the tail boom, support the fenestron drive shafts. The fenestron gearbox provides gear reduction and changes the direction of drive.

The fenestron comprises a 10-bladed tail rotor whose blades are unevenly spaced. The fenestron blades are connected at a central pitch change mechanism, at the hub of the fenestron, for collective pitch changes.

2.4.1 Tail Rotor Drive and Fenestron Examination

The tail rotor drive shaft (short shaft) was connected to the engine module 5 and the opposite end had pulled off the splined coupling exhibiting damaged flex coupling elements (Figure 10). The forward section of the aluminum tail rotor drive shaft remained with the damage forward section of the tail boom. A tail rotor drive shaft hanger bearing was located at the helicopter’s impact crater. A two-foot section of the fenestron drive shaft was located near the fenestron gearbox. An 8-inch section of the fenestron driveshaft was connected to the fenestron gearbox. The gearbox had separated and was next to the tail fin (Figure 11). The fenestron stators had all separated from the tail fin. All the fenestron blades remained in their hubs and blade tips had chordwise scratches. All ten fenestron blades were bent lengthwise inboard.



Figure 10. Tail boom inboard section with tail rotor drive shaft attached.



Figure 11. Outboard section of tail boom, horizontal stabilizer, tail fin, and fenestron.

2.5 Engine Description

The Arriel 2B1 turboshaft engine features a single-stage axial flow compressor and a single-stage centrifugal flow compressor, an annular combustor, a single-stage gas generator turbine rotor that drives the compressor, and a free turbine power turbine rotor. A reduction gearbox is driven via a splined coupling (also known as a "muff coupling") connected to the free turbine power turbine rotor. The reduction gearbox provides final drive to the power transmission shaft. An accessory gearbox is driven from a gear coaxial to the shaft between the axial and centrifugal flow compressors.

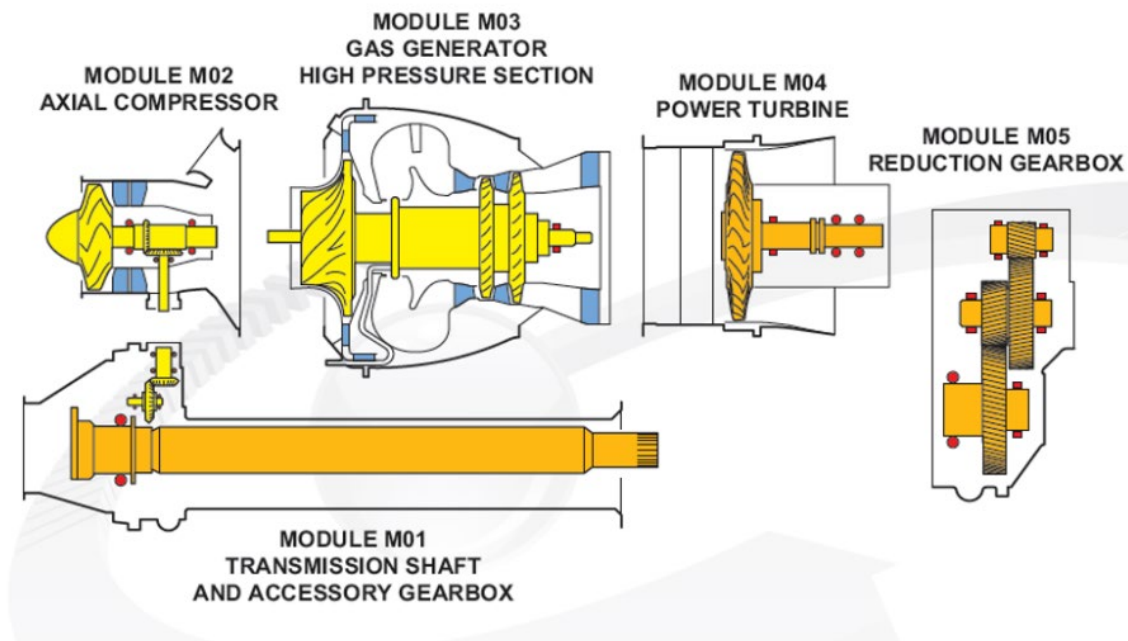


Figure 12. Arriel 2B1 engine assembly modules (Source: Safran Helicopter Engines)

2.5.1 Engine Examination

Manufacturer:	Safran Helicopter Engines
Model:	Arriel 2B1
Serial Number:	23379
Time since new (TSN):	5,121.10 hours
Time since overhaul:	3,421.60 hours

The engine had separated from the airframe mounts, was fire damaged, and the exhaust pipe was deformed (Figure 13). The axial compressor blades were damaged on both the leading and trailing edges (Figure 14). The turbine case was deformed but was not breeched. The turbine case and power turbine containment shield were intact with no evidence of free turbine power turbine blade shedding.

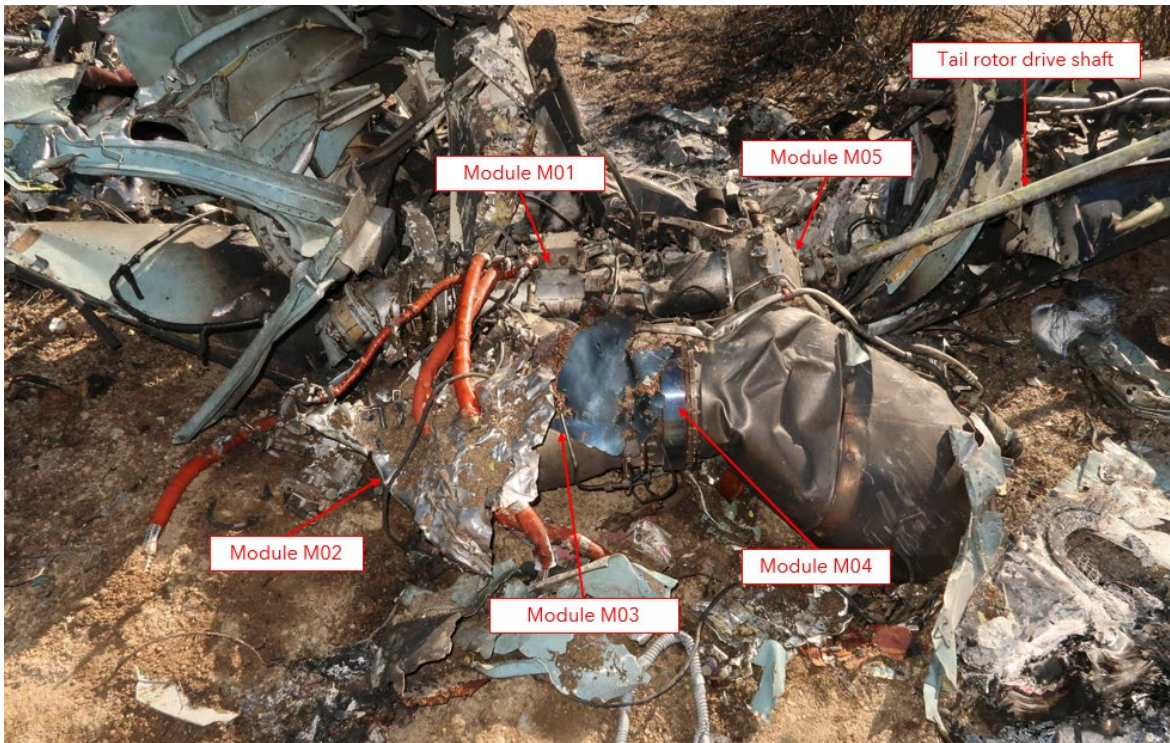


Figure 13. Engine wreckage with engine modules labeled.

The DECU (Digital Engine Control Unit) was heavily heat damaged and retained for possible future examination. The hydromechanical unit (HMU) was present and in fragments next to the engine. Power turbine blades showed trailing edge mechanical damage and some metal spray deposits. The transmission shaft and accessory gearbox (module M01) electronic chip detectors were removed and found to be clean. The engine-to-transmission drive shaft was separated in overload at both ends and the shaft was deformed. The free turbine power turbine (module M04) showed trailing edge mechanical damage and some metal spray deposits. The reduction gearbox (module M05) was removed to inspect the input pinion slippage mark, no displacement observed, and the chip detector was missing. The emergency backup control ancillary unit (EBCAU) was removed, and the keyway was at the 12 o'clock position notch, consistent with normal (nonemergency) operation. The freewheel unit had the transmission shaft connected. The freewheel unit had broken free from the power shaft and was seized. Visual inspection of the interior of the freewheel unit showed all sprag elements present with no observable damage.



Figure 14. Engine axial compressor (module M02) exhibiting leading edge gouging and blade bending opposite the direction of rotation (Source: Safran Helicopter Engines)

E. LIST OF ATTACHEMENTS

1. Attachment 1 - Aircraft Flight Log

Submitted by:

Van S. McKenny IV
Aerospace Engineer (Helicopters)

FACTUAL REPORT - ATTACHMENT 1

Aircraft Flight Log

AIRWORTHINESS

CEN24MA111

N130CZ

Orbic Air Flight Log **ORBIC AIR** N130CZ

Include Your Cust Name

		2608		6.7		84.95	423.4	
		Flight #	Duration	MX Hobbs	Landings	NG Cycles	NF Cycles	Office use
2024	11/26	Pettingill/Coast/Vasac	2609	0.6	0.5*	1	85.7	423.8
	11/29	SANCHEZ / PERSCHKE EURO SAFETY	2610 2611	2.9	26	27	92.5	426.75
	12/3	Pettingill/Sign/Acusta	2602	0.3	2.9	1	92.65	427.2
	12/8	AZOV / BOUKS	2613	0.6	3.4	1	93.45	427.55
	12/14	Anton / Balan	2614	0.7	3.9	4	93.95	427.95
	12/25	Stefanski / MX	2615	0.5	4.3	1	94.75	428.25
	12/23	Stefanski / DTV / Abrar	2616 2617	0.8	5.0	2	96.25	429.00
	12/24	Stefanski / Sign / Hixson	2618	0.3	5.2	1	97.05	429.40
	1/1	Pettingill / ULT / Schreier	2619	0.8	5.9	1	97.90	429.75
	1/5	Pettingill / Celeb x3 / Weco	2620 2621	0.8	6.7	2	99.25	430.55
	1/11	RUSSELL / PERSCHKE EURO SAFETY	2622	1.6	7.8	12	103.15	432.90
	1/14	Pettingill / Charter / VIP	2623 2624	1.8	9.5	2	104.65	433.65
	1/18	AZOV / ULT / RATTMAN	2625	0.6	10.0	1	105.35	433.85
	1/19	AZOV / CHARTER / RICK	2626 2627	2.4	12.1	3	107.70	435.15
	1/19	AZOV / ULT / Grossman	2628	0.6	12.7	1	108.50	435.55
	1/26	AZOV / KON	2629 2630	1.0	13.4	2	110.30	436.30
	1/27	Stefanski / ULT / Jsmers	2631	0.8	14.1	1	111.05	436.70
	1/27	Stefanski / DLX / Wellman	2632	1.0	15.1	1	111.80	437.05
	1/28	Pettingill / Blade / Randolph	2633 2635	1.1	16.9	3	112.65	437.45
	1/30	Stefanski / MX	2636	0.4	17.3	1	114.75	438.55

RECURRING AIRWORTHINESS DIRECTIVES, SERVICE BULLETINS & SERVICE LETTER COMPLIANCE FOR AIRBUS EC130 B4 SERIES

DATE	SIGNATURE	CERT #	CERT TYPE	ACT
10/7			PL	0.7
10/8			PL	1.4
10/8			com	3.9
10/11			APP	4.7
10/12			PL	6.0
10/14			PL	6.4
10/15			APP	7.8
10/16			com	8.6
10/17			CPL	10.7
10/18			CPL	12.8
10/19			CPL	15.3
10/20			CPL	18.0
10/23			CPL	19.3
10/27			CPL	20.5
11/9			CPL	2.2
11/12			CPL	2.6
11/13			CPL	0.0
11/19			CPL	4.3
11/20			com	5.8
11/21			CPL	6.4
11/27			CPL	6.7
11/29			APP	0.0
12/3			CPL	2.6
12/8			com	7.9
12/14			APP	3.4
12/23			CPL	3.0
12/24			CPL	5.0
1/1			CPL	5.2
1/5			CPL	5.9
1/11			APP	6.7
1/14			CPL	7.8
1/18			com	9.5
1/19			com	10.0
1/26			com	12.7
1/27			CPL	13.4
1/28			CPL	15.1

ORF AIR

N130CZ

RECURRING AIRWORTHINESS DIRECTIVES, SERVICE BULLETINS & SERVICE LETTER COMPLIANCE FOR AIRBUS EC130 B4 SERIES

DATE	SIGNATURE	CERT #	CERT TYPE	ACT
7/10			PII	4668.8
7/11			PL	4672.8
7/14			CPL	4673.7
7/15			PL	4674.5
7/17			PII	4674.8
7/18			PL	4675.2
7/19			CPL	4676.2
7/20			CPL	4676.6
				4678.1
				4679.5
7/30			CFII	4679.7
7/31			CFII	4683.2
8/4			Com	4689.8
8/5			CPL	4697.2
8/8			CPL	4693.2
8/10			CFII	4693.5
8/11			CPL	4694.3
8/13			CPL	4694.5
8/14			CFII	4696.2
8/16			CPL	4697.1
8/17			CFII	4697.5
8/19			CPL	4699.1
8/25			CPL	4701.4
8/27			CFII	0.7
8/28			CFII	2.3
9/1			CPL	2.7
9/2			CPL	3.4
9/3			CFII	6.7
9/4			CFII	8.5
9/7			CFII	10.7
9/9			CFII	13.1
9/14			CFII	17.4
9/15			CFII	17.8
9/20			CFII	18.2
9/25			CPL	20.3
9/28			CFII	25.4
9/29			Com	27.3
10/30			CPL	29.1
10/1			CFII	30.9
10/5			CFII	32.1
10/26			Com	12.7

N130CZ Dual control removal / installation

I CERTIFY THE AIRCRAFT DUAL CONTROLS HAVE BEEN REMOVED / INSTALLED IAW AIRBUS EC130 AMM 67-10-00, 4-2A AND WEIGHT AND BALANCE HAS BEEN UPDATED ACCORDINGLY

DATE	SIGNATURE	A&P CERT #	Controls on/off	ACT
08/20/21			ON	4005.4
05/25/21			OFF	4012.0
05/30/21			ON	4020.4
06/01/21			OFF	4024.7
06/11/21			ON	4037.7
06/17/21			Removal	4041.4
06/25/21			Install	4049.2
07/05/21			OFF	4054.6
08/04/21			OFF	4073.0
08/22/21			ON	4087.2
9/3/21			ON	4093.2
9/10/21			ON	4094.7
10/15/21			OFF	4111.8
10/29/21			ON	4123.3
12/17/21			OFF	4154.6
12/23/21			ON	4160.0
01/18/22			OFF	4178.0
1/21/22			ON	4179.7
3/22/22			OFF	4236.3
3/24/22			ON	4242.3
4/12/22			OFF	4262.9
4/27/22			ON	4309.8



Aircraft status report

Airbus EC130 B4
registration N130CZ
owned/operated by **Orbic Air**

Airframe details

Serial no.
3260

Manufacture date
2006-03-29

Maintenance pgm.
Manufacture

TCDS no.

Total time
4766.2 hrs

Landings
11897.0 LDC

Engine 1

Manufacturer + model
Maintenance pgm.

TURBOMECA ARIEL 2B1
MANUFACTURES

TCDS no.

Serial no.

23379

Manufacture date

2012-11-19

Total time

5271.9 hrs

Hot cycles

1985.42 NG CYC

Hot cycles

386.15 NE CYC

Prepared by: **Erwin Petschauer** on **11 January 2024, 10:09am**

Signature

Flight hours during past 12 months



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Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Overview

Abbreviations used

A/F Airframe
TSN Time since new
SLL Service life limit
O/C On condition

TSO Time since overhaul
TTSN Total time since new
Cal Calendar
---- Inspection in extension

TBO Time before overhaul
Hrs Hours
TCDS Type certificate data sheet

Alert thresholds

	Red (urgent)	Yellow (due soon)	Green (due later)	
HOURS	5.0	20.0	50.0	hrs before due
Days	5.0	20.0	50.0	days before due
LANDINGS	5.0	20.0	50.0	LDG before due
NG CYCLES	5.0	20.0	50.0	NG CYC before due
NF CYCLES	5.0	20.0	50.0	NF CYC before due



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 2 of 24

Inspections

Airframe inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
1. MGB OIL FILTER REPLACEMENT	AIRBUS EC130 B4 MM 63-21-00, 3-1	airframe	600.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4343.6 hrs (A/F) 21 Jun '22 (A/F)	4943.6 hrs (A/F) 6 Jun '24 (A/F)	175.4 hrs (A/F) 21 weeks, 0 days (147 days) (A/F)
2. STARTER GENERATOR BRUSH CHECK	AIRBUS EC130B4 MM 80-00-01, 4-2.	airframe	300.0 hrs (A/F)	4758.8 hrs (A/F)	5058.8 hrs (A/F)	290.6 hrs (A/F)
11. 150HR / 12 MONTH INSPECTION	AIRBUS EC130 B4 MSM 05-21-00	airframe	150.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4678.1 hrs (A/F) 21 Jul '23 (A/F)	4828.1 hrs (A/F) 21 Jul '24 (A/F)	59.9 hrs (A/F) 27 weeks, 3 days (192 days) (A/F)
12. 600H / 24 MONTH	AIRBUS EC130 B4 MSM	airframe	600.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4550.9 hrs (A/F) 17 Jan '23 (A/F)	5150.9 hrs (A/F) 17 Jan '25 (A/F)	382.7 hrs (A/F) 1 year, 6 days (372 days) (A/F)
13. 1200HR / 48 MONTH INSPECTION	AIRBUS EC130 B4 MSM	airframe	1200.0 hrs (A/F) 4y, 0d (1461 days) (A/F)	4678.1 hrs (A/F) 21 Jul '23 (A/F)	5878.1 hrs (A/F) 30 Mar '27 (A/F)	1109.9 hrs (A/F) 3 years, 11 weeks, 2 days (1174 days) (A/F)
14. 12 YEAR AIRFRAME INSPECTION	AIRBUS EC130 B4 MSM	airframe	12y, 0d (4383 days) (A/F)		31 Mar '31 (A/F)	7 years, 11 weeks, 3 days (2636 days) (A/F)
17. REGISTRATION RENEWAL		airframe	3y, 0d (1096 days) (A/F)		30 Sep '25 (A/F)	1 year, 37 weeks, 4 days (628 days) (A/F)
18. 30 DAY FIRE EXT CHECK	MANUFACTURES INSTRUCTIONS	airframe	4wk, 2d (30 days) (A/F)	14 Dec '23 (A/F)	12 Jan '24 (A/F)	1 day (A/F)
19. 1 YEAR FIRE EXT WEIGHT CHECK		airframe	1y, 0d (366 days) (A/F)	14 Nov '23 (A/F)	1 Nov '24 (A/F)	42 weeks, 1 day (295 days) (A/F)
20. FIRE EXT 6 YEAR INSPECTION		airframe	6y, 0d (2192 days) (A/F)	30 Jan '20 (A/F)	30 Jan '26 (A/F)	2 years, 2 weeks, 5 days (750 days) (A/F)



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Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 3 of 24

Inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
21. FIRE EXT 12 YEAR INSPECTION		airframe	12y, 0d (4383 days) (A/F)		31 Jan '26 (A/F)	2 years, 2 weeks, 6 days (751 days) (A/F)
22. 600HR TWIST GRIP LOAD SPING REPLACEMENT	AIRBUS EC130 B4 MSM	airframe	1200.0 hrs (A/F)	4262.9 hrs (A/F)	5462.9 hrs (A/F)	694.7 hrs (A/F)
23. 12 YEAR ENGINE / MGB COUPLING INSPECTION	AIRBUS EC130 B4 MSM	airframe	12y, 0d (4383 days) (A/F)		31 Mar '31 (A/F)	7 years, 11 weeks, 3 days (2636 days) (A/F)
24. MGB OIL CHANGE	EC130 B4 MM 12-10-00, 3-1. ROYCO 586M	airframe	600.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4343.6 hrs (A/F) 21 Jun '22 (A/F)	4943.6 hrs (A/F) 6 Jun '24 (A/F)	175.4 hrs (A/F) 21 weeks, 0 days (147 days) (A/F)
26. HYD FLUID CHANGE	EC130 B4 AMM 29-00-00,3-3	airframe	3000.0 hrs (A/F) 4y, 0d (1461 days) (A/F)	4678.1 hrs (A/F) 21 Jul '23 (A/F)	7678.1 hrs (A/F) 31 Mar '27 (A/F)	2909.9 hrs (A/F) 3 years, 11 weeks, 3 days (1175 days) (A/F)
27. M/R ROTOR BLADE PIN INSPECTION / LUBE	AIRBUS EC130 B4 MM 62-11-00, 3-3	airframe	150.0 hrs (A/F) 26wk, 0d (182 days) (A/F)	4678.1 hrs (A/F) 21 Jul '23 (A/F)	4828.1 hrs (A/F) 16 Jan '24 (A/F)	59.9 hrs (A/F) 5 days (A/F)
28. T/R GEARBOX OIL CHANGE	AIRBUS EC130 B4 12-10-00, 3-1	airframe	600.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4343.6 hrs (A/F) 21 Jun '22 (A/F)	4943.6 hrs (A/F) 6 Jun '24 (A/F)	175.4 hrs (A/F) 21 weeks, 0 days (147 days) (A/F)
30. INTERMEDIATE STRUCTURE / AIL BOOM COUPLING	AIRBUS EC130 B4 MSM	airframe	2500.0 hrs (A/F) 6y, 0d (2192 days) (A/F)		6147.7 hrs (A/F) 31 Mar '25 (A/F)	1379.5 hrs (A/F) 1 year, 11 weeks, 3 days (445 days) (A/F)
31. 300HR DETAILED WASHPLATE INSPECTION	AIRBUS EC130 B4 MM 62-32-00, 6-1 & 6-2	airframe	300.0 hrs (A/F)	4758.8 hrs (A/F)	5058.8 hrs (A/F)	290.6 hrs (A/F)
32. 300HR STARTER GENERATOR INSPECTION	AIRBUS EC130 B4 MM 80-00-01	airframe	300.0 hrs (A/F)	4758.8 hrs (A/F)	5058.8 hrs (A/F)	290.6 hrs (A/F)
33. 1800HR SICMA SEAT SECTION	AIRBUS EC130 B4 MSM	airframe	1800.0 hrs (A/F)		5190.4 hrs (A/F)	422.2 hrs (A/F)
34. 2400HR SICMA SEAT SECTION	AIRBUS EC130 B4 MSM	airframe	2400.0 hrs (A/F)		5790.4 hrs (A/F)	1022.2 hrs (A/F)

The document reference is online, please check the correspondence between the online documentation and the printed version page 4 of 24

Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
35. 3500HR ENGINE FIRE DETECTOR CHECKS		airframe	3500.0 hrs (A/F)		6996.5 hrs (A/F)	2228.3 hrs (A/F)
36. ROTOR MAST LOWER INSPECTION	AIRBUS EC130 B4 MSM	airframe	6y, 0d (2192 days) (A/F)		30 Mar '25 (A/F)	1 year, 11 weeks, 2 days (444 days) (A/F)
38. TGB Chip detector check	AMM 60-00-00, 6-2	airframe	100.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4758.8 hrs (A/F) 14 Nov '23 (A/F)	4858.8 hrs (A/F) 14 Nov '24 (A/F)	90.6 hrs (A/F) 44 weeks, 0 days (308 days) (A/F)
39. MGB Chip detector check	AMM 60-00-00, 6-2	airframe	100.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4758.8 hrs (A/F) 14 Nov '23 (A/F)	4858.8 hrs (A/F) 14 Nov '24 (A/F)	90.6 hrs (A/F) 44 weeks, 0 days (308 days) (A/F)
44. 7 Day / 10hr AIRFRAME INSPECTION	MSM 05-20-02	airframe	10.0 hrs (A/F) 1wk, 0d (7 days) (A/F)	4768.2 hrs (A/F) 11 Jan '24 (A/F)	4778.2 hrs (A/F) 17 Jan '24 (A/F)	10.0 hrs (A/F) 6 days (A/F)
AD. AD 2010-21-07 FADEC TWIST GRIP MODIFICATION CHECK	AD 2010-21-07, PAR E	airframe	600.0 hrs (A/F)	4733.8 hrs (A/F)	5333.8 hrs (A/F)	565.6 hrs (A/F)
AD. AD 2016-25-20 MGB CROSSBEAM	2016-25-20 PAR.E.1	airframe	3300.0 hrs (A/F) 66000.0 LDG (A/F)		6947.7 hrs (A/F) 65697.0 LDG (A/F)	2179.5 hrs (A/F) 53800.0 LDG (A/F)
AD. AD 2020-23-09 LH CABIN SLIDING DOOR		airframe	165.0 hrs (A/F)	4678.1 hrs (A/F)	4843.1 hrs (A/F)	74.9 hrs (A/F)
AD. AD 2020-23-09 LH CABIN SLIDING DOOR		airframe	660.0 hrs (A/F)	4262.9 hrs (A/F)	4922.9 hrs (A/F)	154.7 hrs (A/F)
AD. AD 2020-24-07 FADEC TWIST GRIP	AD 2018-26-02 PARA F.2	airframe	600.0 hrs (A/F)	4236.3 hrs (A/F)	4836.3 hrs (A/F)	68.1 hrs (A/F)
AD. AD 2021-09-05 JUNCTION FRAME INSPECTION		airframe	600.0 hrs (A/F)	4733.8 hrs (A/F)	5333.8 hrs (A/F)	565.6 hrs (A/F)
AD. AD 2022-01-01 MAIN ROTOR PITCH ROD SCREW		airframe	10.0 hrs (A/F)	4766.7 hrs (A/F)	4776.7 hrs (A/F)	8.5 hrs (A/F)
ASB. ASB 67A021 ACTUATING ROD	ASB 67A021	airframe	150.0 hrs (A/F)	4678.1 hrs (A/F)	4828.1 hrs (A/F)	59.9 hrs (A/F)
ICA. ICA BLADE TIE DOWN INSTALLATION	ICA-ECL-237	airframe	600.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4343.6 hrs (A/F) 21 Jun '22 (A/F)	4943.6 hrs (A/F) 6 Jun '24 (A/F)	175.4 hrs (A/F) 21 weeks, 0 days (147 days) (A/F)



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Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 5 of 24

Inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
ICA. ICA BLADE TIE DOWN INSTALLATION	ICA-ECL-237	airframe	150.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4678.1 hrs (A/F) 21 Jul '23 (A/F)	4828.1 hrs (A/F) 21 Jul '24 (A/F)	59.9 hrs (A/F) 27 weeks, 3 days (192 days) (A/F)
ICA. ICA CONCORDE RG350 BATTERY INSPECTION	CONCORDE ICA 5-0324	airframe	1000.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4758.8 hrs (A/F) 14 Nov '23 (A/F)	5758.8 hrs (A/F) 14 Nov '24 (A/F)	990.6 hrs (A/F) 44 weeks, 0 days (308 days) (A/F)
ICA. ICA WHELEN LED TAXI AND LANDING LIGHT	WHELEN STC MANUAL	airframe	50.0 hrs (A/F) 1y, 0d (366 days) (A/F)	4733.5 hrs (A/F) 4 Oct '23 (A/F)	4783.5 hrs (A/F) 3 Oct '24 (A/F)	15.3 hrs (A/F) 38 weeks, 0 days (266 days) (A/F)
SB. ASB 62A018 Main Rotor Shaft	ASB 62A018	airframe	--		5700.0 hrs (A/F)	931.8 hrs (A/F)
SB. SB 05-016 COLLECTIVE PITCH	SB 05-016 REV 1	airframe	2y, 8wk, 6d (792 days) (A/F)	27 Feb '22 (A/F)	29 Apr '24 (A/F)	15 weeks, 4 days (109 days) (A/F)
SB. SB 05-026 STARTER GEN BRUSHES	SB 05-026 REV 0 PAR.3.B.2	airframe	350.0 hrs (A/F)	4495.1 hrs (A/F)	4842.3 hrs (A/F)	74.1 hrs (A/F)
SB. SB 05-029 SECONDARY HYD PUMP GREASING	SB 05-029 REV 0 PAR.3.B	airframe	1320.0 hrs (A/F)		4967.7 hrs (A/F)	199.5 hrs (A/F)
SB. SB 05A009 TWIST GRIP MICRO SWITCH INSP	05A009 REV 3, PAR.3	airframe	330.0 hrs (A/F) 26wk, 0d (182 days) (A/F)	4733.8 hrs (A/F) 6 Oct '23 (A/F)	5063.8 hrs (A/F) 5 Apr '24 (A/F)	295.6 hrs (A/F) 12 weeks, 1 day (85 days) (A/F)
SB. SB 05A028 MGB SUSPENSION BAR BRACKET	SB 05A028 REV 0 PAR 3	airframe	600.0 hrs (A/F)	4733.8 hrs (A/F)	5333.8 hrs (A/F)	565.6 hrs (A/F)
SB. SB 05A031 165HR SLIDING DOOR OPENING MECHANISM	SB 05A031 REV 0 PAR 3.B.1	airframe	165.0 hrs (A/F)	4678.1 hrs (A/F)	4843.1 hrs (A/F)	74.9 hrs (A/F)
SB. SB 05A031 660 HR SLIDING DOOR OPENING MECHANISM	SB 05A031 REV 0 PAR 3.B.1	airframe	660.0 hrs (A/F)	4262.9 hrs (A/F)	4922.9 hrs (A/F)	154.7 hrs (A/F)
SB. SB A4005 MGB CASING INITIAL	SB A4005 PAR.1.E.2.A	airframe	89800.0 LDG (A/F)		86023.0 LDG (A/F)	74126.0 LDG (A/F)
SB. SB A4005 MGB SUMP CASING INITIAL	SB A4005 PAR.1.E.2.A	airframe	78100.0 LDG (A/F)		74323.0 LDG (A/F)	62426.0 LDG (A/F)



The document reference is online, please check the correspondence between the online documentation and the printed version **page 6 of 24**

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
SIN. SIN 2930-I-32 INSPECTION OF FRONT SKID TUBE WEAR PLATE	SIN 2930-I-32	airframe	660.0 hrs (A/F) 2y, 0d (731 days) (A/F)	4550.9 hrs (A/F) 17 Jan '23 (A/F)	5210.9 hrs (A/F) 17 Jan '25 (A/F)	442.7 hrs (A/F) 1 year, 6 days (372 days) (A/F)

Engine inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
4. 25HR HEALTH CHECK	ARRIEL 2B1 MM 05-20-10-201-810-A01	engine 1	25.0 hrs (eng)	5208.4 hrs (eng)	5233.4 hrs (eng)	22.2 (eng)
5. 30HR M01 & M05 CHIP PLUG CHECK	ARRIEL 2B1 MM 05-20-10-201-810-A01	engine 1	30.0 hrs (eng)	5201.8 hrs (eng)	5231.8 hrs (eng)	20.6 (eng)
6. ENGINE 300HR INSPECTION	SAFRAN ARRIEL 2B1 MM 05-20-10-201-835-A01	engine 1	300.0 hrs (eng) 1y, 0d (366 days) (eng)	4993.9 hrs (eng) 17 Jan '23 (eng)	5293.9 hrs (eng) 18 Jan '24 (eng)	82.7 (eng) 1 y da (7 (e
7. 600HR ENGINE INSPECTION	ARRIEL 2B1 MM	engine 1	600.0 hrs (eng)	4705.9 hrs (eng)	5290.7 hrs (eng)	7 (
25. ENGINE OIL CHANGE		engine 1	600.0 hrs (eng) 2y, 0d (731 days) (eng)	4993.9 hrs (eng) 17 Jan '23 (eng)	5593.9 hrs (eng) 17 Jan '25 (eng)	
40. ENGINE 150HR INSPECTION	ARRIEL 2B1 MM 05-20-10-201-825-A01	engine 1	150.0 hrs (eng)	5121.1 hrs (eng)	5271.1 hrs (eng)	
45. ENGINE 7 DAY / 15HR INSPECTION	05-20-10-201-810-A01	engine 1	15.0 hrs (eng) 1wk, 0d (7 days) (eng)	5211.2 hrs (eng) 11 Jan '24 (eng)	5226.2 hrs (eng) 17 Jan '24 (eng)	
AD. AD 2014-12-05	AD 2014-12-05	engine 1				
AD. AD 2015-13-04 GEARBOX 41 TOOTH GEAR CHECK	AD 2015-13-04	engine 1				



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Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
AD. AD 2016-25-13 ACCESSORY GEARBOX	AD 2016-25-13	engine 1	600.0 hrs (eng)	5121.1 hrs (eng)	5721.1 hrs (eng)	509.9 hrs (eng)
AD. AD 2018-12-01 REPLACEMENT OF PRE MOD TU 178 HMU	AD 2018-12-01	engine 1	2200.0 hrs (eng) 6y, 0d (2192 days) (eng)		6280.3 hrs (eng) 29 Sep '24 (eng)	1069.1 hrs (eng) 37 weeks, 3 days (262 days) (eng)
SB. SB 292-72-2812 HMU SPLINES	HMU SPLINES INSPEC	engine 1				
SB. SB 292-72-2823 START ELECTRO VALVE	SB 292-72-2823	engine 1	150.0 hrs (eng)	5121.1 hrs (eng)	5271.1 hrs (eng)	59.9 hrs (eng)
SB. SB 292-73-2187 LP PUMP / HMU DRIVE LINK	SB 292-73-2178	engine 1	2200.0 hrs (eng)	4705.9 hrs (eng)	6905.9 hrs (eng)	1694.7 hrs (eng)

Instrument inspections

No. & Description	ATA reference	Type	Repeat interval	Time last completed	Time due	To run
9. 30 DAY KANNARD ELT SELF TEST	EC130 B4 MM 25-66-02, 5-1	instrument	4wk, 2d (30 days) (A/F)	13 Dec '23 (A/F)	11 Jan '24 (A/F)	0 days (A/F)
15. 91.413 - 2 YEAR TRANSPONDER CHECK	FAA FAR 91.413	instrument	2y, 0d (731 days) (A/F)	28 Jul '20 (A/F)	31 Jul '24 (A/F)	28 weeks, 6 days (202 days) (A/F)
16. 91.411 2 YEAR PITOT / STATIC	FAA FAR 91.411	instrument	2y, 0d (731 days) (A/F)	28 Jul '20 (A/F)	31 Jul '24 (A/F)	28 weeks, 6 days (202 days) (A/F)
29. 1 YEAR 91.207 ELT INSPECTION	FAA FAR 91.207	instrument	1y, 0d (366 days) (A/F)	13 Apr '23 (A/F)	12 Apr '24 (A/F)	13 weeks, 1 day (92 days) (A/F)
37. GPS NAV DATA BASE UPDATES		instrument	4wk, 0d (28 days) (A/F)	23 Dec '23 (A/F)	19 Jan '24 (A/F)	1 week, 1 day (8 days) (A/F)

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Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

page 8 of 24

Airframe components installed

Description	Part no.	Serial no.	Current time on part	Airframe time due off	Time remaining
AIR COND BELT	SPK633	N/A	6y, 19wk, 0d (2324 days) 1617.5 hrs	28 Feb '24 4950.7 hrs	7wk, 0d (49 days) 182.5 hrs
AVA INSPECTION	350A31-0033-06	SD607	4y, 40wk, 6d (1747 days) 1120.5 hrs	31 Mar '25 6647.7 hrs	1y, 11wk, 3d (445 days) 1879.5 hrs
BLADE HORN	350A31-1877-03	MAP2270	4768.2 hrs	20000.0 hrs	15231.8 hrs
BLADE HORN	350A31-1877-03	MAP2261	4768.2 hrs	20000.0 hrs	15231.8 hrs
BLADE HORN	350A31-1877-03	MAP2256	4768.2 hrs	20000.0 hrs	15231.8 hrs
CENTER SHAFT SECTION	350A34-0214-00	M1616	1774.5 hrs	5993.7 hrs	1225.5 hrs
CROSSBEAM / LAMINATE INSP	350A38-1040-20	4060	4y, 40wk, 6d (1747 days)	31 Mar '25	1y, 11wk, 3d (445 days)
ELT BATTERY REPLACEMENT	UNK	UNK	3y, 19wk, 0d (1228 days)	31 Aug '27	3y, 33wk, 2d (1328 days)
EPICYCLIC INSP	350A32-0120-00	M6675	11y, 19wk, 0d (4150 days)	31 Aug '24	33wk, 2d (233 days)
EPICYCLIC TBO	350A32-0120-00	M6675	11y, 19wk, 0d (4150 days) 1774.5 hrs	31 Aug '36 5993.7 hrs	12y, 33wk, 2d (4616 days) 1225.5 hrs
FREQUENCY ADAPTER	704A33-6401-00	19281	O/C	O/C	O/C
FREQUENCY ADAPTER	704A33-6401-00	19278	O/C	O/C	O/C
FREQUENCY ADAPTERS	704A33-6401-00	19256	O/C	O/C	O/C
FRONT SHAFT SECTION	350A34-0151-00	M1180	4768.2 hrs	20000.0 hrs	15231.8 hrs
FUEL PUMP	SPK633	C25867	O/C	O/C	O/C
HYD PULLEY BRG	704A33651206	R/N A13711	3y, 31wk, 3d (1315 days) 924.8 hrs	5 Jun '26 7443.4 hrs	2y, 20wk, 6d (876 days) 2675.2 hrs
LOWER SLEEVE	350A31-1850-02	M11819	4768.2 hrs	6600.0 hrs	1831.8 hrs
LOWER SLEEVE	350A31-1850-02	M11823	4768.2 hrs	6600.0 hrs	1831.8 hrs
LOWER SLEEVE	350A31-1850-02	M11820	4768.2 hrs	6600.0 hrs	1831.8 hrs
M/R ATTACH BOLT	350A37-1245-20	91329	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1245-20	91339	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1245-20	91338	1774.5 hrs	5993.7 hrs	1225.5 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 9 of 24

Airframe components installed

Description	Part no.	Serial no.	Current time on part	Airframe time due off	Time remaining
M/R ATTACH BOLT	350A37-1244-20	98239	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1244-20	98453	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1244-20	98491	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1244-20	98483	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1244-20	9846	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1245-20	90706	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1245-20	90711	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1245-20	91279	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R ATTACH BOLT	350A37-1244-20	98465	1774.5 hrs	5993.7 hrs	1225.5 hrs
M/R BLADE (BLUE)	355A11-0030-04	30545	3257.4 hrs	21510.8 hrs	16742.6 hrs
M/R BLADE (RED)	355A11-0030-04	30575	3257.4 hrs	21510.8 hrs	16742.6 hrs
M/R BLADE (YELLOW)	355A11-0030-04	30566	3257.4 hrs	21510.8 hrs	16742.6 hrs
M/R BLADE PIN	350A31-1770-02	M3513	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R BLADE PIN	350A31-1770-02	M2443	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R BLADE PIN	350A31-1770-02	M3644	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R BLADE PIN	350A31-1770-02	M3578	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R BLADE PIN	350A31-1770-02	M1612	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R BLADE PIN	350A31-1770-02	M3515	1663.2 hrs	15105.0 hrs	10336.8 hrs
M/R HUB 12 YEAR	355A31-0002-01	M2803	4y, 40wk, 6d (1747 days)	31 Mar '31	7y, 11wk, 3d (2636 days)
M/R SERVO O/H	SC0842	1285	11y, 19wk, 0d (4150 days) 1774.5 hrs	31 Aug '32 5993.7 hrs	8y, 33wk, 2d (3155 days) 1225.5 hrs
M/R SERVO O/H	SC8043	625	6y, 19wk, 0d (2324 days) 1316.6 hrs	31 Aug '37 6451.6 hrs	13y, 33wk, 2d (4981 days) 1683.4 hrs
M/R SERVO O/H	SC8042	1324	6y, 19wk, 0d (2324 days) 1314.1 hrs	31 Aug '37 6454.1 hrs	13y, 33wk, 2d (4981 days) 1685.9 hrs
M/R SERVO SLL	SC0842	1285	5707.1 hrs	19061.1 hrs	14292.9 hrs
M/R SERVO SLL	SC8043	625	6967.9 hrs	17800.3 hrs	13032.1 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version page 10 of 24

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Airframe components

Description	Part no.	Serial no.	Current time on part	Airframe time due off	Time remaining
M/R SERVO SLL	SC8042	1324	8039.7 hrs	16728.5 hrs	11960.3 hrs
M/R SHAFT	350A37-1290-04	FR270	4768.2 hrs 11897.0 LDG	20000.0 hrs 72000.0 LDG	15231.8 hrs 60103.0 LDG
M/R SHAFT ASSY	355A37-0006-00	M774	4768.2 hrs	20000.0 hrs	15231.8 hrs
M/R SHAFT BEARING	Y45RU10998S3M74	NR5294	2270.6 hrs	5497.6 hrs	729.4 hrs
MAST LOWER HOUSNG	350A37-1292-00	S1527	4768.2 hrs	20000.0 hrs	15231.8 hrs
MAST UPPER HOUSUNG	350A37-1291-00	S1578	4768.2 hrs	20000.0 hrs	15231.8 hrs
MGB BEVEL GEAR INSP	350A32-0350-02	M3398	11y, 19wk, 0d (4150 days)	31 Aug '24	33wk, 2d (233 days)
MGB BEVEL GEAR TBO	350A32-0350-02	M3398	11y, 19wk, 0d (4150 days) 1774.5 hrs	31 Aug '36 5993.7 hrs	12y, 33wk, (4616 days) 1225.5 hrs
MGB FRONT BAR	704A33-633-075	864	4768.2 hrs	20000.0 hrs	15231.8 hr
MGB FRONT BAR	704A33-6332-62	7132	1120.5 hrs	23647.7 hrs	18879.5 h
MGB OIL PUMP	350A32-0400-00	M3546	2230.0 hrs	6538.2 hrs	1770.0 hrs
MGB REAR BAR	704A33-6330-75	7707	4768.2 hrs	20000.0 hrs	15231.8 h
MGB REAR BAR	704A33-6330-75	7687	4768.2 hrs	20000.0 hrs	15231.8 h
NON ROTATING SWASHPLATE	350A37-1002-07	S2068	4768.2 hrs	20000.0 hrs	15231.8 h
REAR SHAFT SECTION	350A34-0212-00	PPT00609	O/C	O/C	O/C
ROTATING SWASHPLATE	350A37-1003-08	S1773	4768.2 hrs	20000.0 hrs	15231.8
SCISSOR LOWER LINK	350A37-1127-02	S3945	4768.2 hrs	20000.0 hrs	15231.8
SCISSOR LOWER LINK	350A37-1127-02	S3745	4768.2 hrs	20000.0 hrs	15231.8
SCISSOR UPPER LINK	350A37-1126-02	S3977	4768.2 hrs	20000.0 hrs	15231.8
SCISSOR UPPER LINK	350A37-1126-02	S3816	4768.2 hrs	20000.0 hrs	15231.8
SCISSORS DRIVE ADAPTER	355A37-1235-27	S102	4768.2 hrs	20000.0 hrs	15231.8
SHP THRUST BEARING	704A33-6332-08	LK26799	982.9 hrs	8385.3 hrs	3617.1
SPH THRUST BEARING	704A33-6332-08	LK27208	982.9 hrs	8385.3 hrs	3617.1
SPH THRUST BEARING	704A33-6332-08	LK27197	982.9 hrs	8385.3 hrs	3617.1
SPH THURST BRG BOLT	350A31-1854-21	S1076	1774.5 hrs	5993.7 hrs	1225.5



The document reference is online, please check the correspondence between the online documentation and the printed version Page

Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Airframe components installed

Description	Part no.	Serial no.	Current time on part	Airframe time due off	Time remaining
SPH THURST BRG BOLT	350A31-1854-21	51036	1774.5 hrs	5993.7 hrs	1225.5 hrs
SPH THURST BRG BOLT	350A31-1854-21	51093	1774.5 hrs	5993.7 hrs	1225.5 hrs
SPH THURST BRG BOLT	350A31-1854-21	51086	1774.5 hrs	5993.7 hrs	1225.5 hrs
SPH THURST BRG BOLT	350A31-1854-21	51087	1774.5 hrs	5993.7 hrs	1225.5 hrs
SPH THURST BRG BOLT	350A31-1854-21	51091	1774.5 hrs	5993.7 hrs	1225.5 hrs
STARFLEX	350A31-1918-00	M9143	575.9 hrs	7192.3 hrs	2424.1 hrs
STARTER GENERATOR	150SG122Q	10188	146.5 hrs	5521.7 hrs	753.5 hrs
SWASHPLATE BEARING	704A33-6511-58	NR5637	4768.2 hrs	6600.0 hrs	1831.8 hrs
T/R BLADE	350A33-3002-02	M1995	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M2003	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M5607	2742.9 hrs	12025.3 hrs	7257.1 hrs
T/R BLADE	350A33-3002-02	M2007	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M2020	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M2023	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M2024	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M5624	2398.9 hrs	12369.3 hrs	7601.1 hrs
T/R BLADE	350A33-3002-02	2042	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R BLADE	350A33-3002-02	M2056	4768.2 hrs	10000.0 hrs	5231.8 hrs
T/R HUB ASSY	350A33-3100-01	M252	5y, 23wk, 3d (1990 days) 1170.3 hrs	31 Jul '30 10497.9 hrs	6y, 28wk, 6d (2393 days) 5729.7 hrs
T/R HUB ASSY	350A33-3120-01	CU000852	4768.2 hrs	6900.0 hrs	2131.8 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version **page 12 of 24**

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Airframe components installed

description	Part no.	Serial no.	Current time on part	Airframe time due off	Time remaining
TAIL DRIVE SHAFT BRG'S QTY 5	593404	N/A	13wk, 6d (97 days) 34.4 hrs	6 Oct '29 8333.8 hrs	5y, 38wk, 3d (2095 days) 3565.6 hrs
TAIL GEARBOX TBO	350A33-0501-01	M1461	1y, 38wk, 0d (631 days) 474.2 hrs	19 Apr '46 8294.0 hrs	22y, 14wk, 2d (8135 days) 3525.8 hrs
UPPER SLEEVE	350A31-1850-03	M11699	4768.2 hrs	6600.0 hrs	1831.8 hrs
UPPER SLEEVE	350A31-1850-03	M11394	4768.2 hrs	6600.0 hrs	1831.8 hrs
UPPER SLEEVE	350A31-1850-03	M11686	4768.2 hrs	6600.0 hrs	1831.8 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version

Page 13 of 24

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Engine 1 components installed

Description	Part no.	Serial no.	Current time on part	Engine 1 time due off	Time remaining
ADJUSTED FUEL VALVE	0292958070	1889	O/C	O/C	O/C
BLEED VALVE	9550164950	10019	O/C	O/C	O/C
DEEC UNIT	70BMF01020	2240	O/C	O/C	O/C
FREEWHEEL UNIT	0292900020	5422	12y, 6wk, 0d (4425 days) 1716.2 hrs	30 Nov '26 6995.0 hrs	2y, 46wk, 2d (1054 days) 1783.8 hrs
FUEL FILTER BYPASS SWITCH	9550172000	A4882	1y, 47wk, 1d (695 days)	16 Feb '32	8y, 5wk, 1d (2958 days)
LOW PRESSURE FUEL SWITCH	9550179130	6309	1y, 39wk, 1d (639 days)	12 Apr '32	8y, 13wk, 1d (3014 days)
LOW PRESSURE SWITCH	9550170830	2322	O/C	O/C	O/C
M03	70BM032030	11111	2y, 24wk, 0d (898 days) 1935.0 hrs 2981.65 NG CYC	26 Jan '38 6776.2 hrs 23003.77 NG CYC	14y, 2wk, 2d (5130 days) 1565.0 hrs 7018.35 NG CYC
M05	70BM052000	1981	11y, 6wk, 0d (4060 days) 1716.2 hrs	30 Nov '27 6995.0 hrs	3y, 46wk, 2d (1419 days) 1783.8 hrs
M01	70BM010030	1982	11y, 5wk, 6d (4059 days) 1716.2 hrs	1 Dec '27 6995.0 hrs	3y, 46wk, 3d (1420 days) 1783.8 hrs
M02	70BM022010	2001	11y, 5wk, 6d (4059 days) 3134.42 NG CYC 1716.2 hrs	1 Dec '27 34851.0 NG CYC 6995.0 hrs	3y, 46wk, 3d (1420 days) 18865.58 NG CYC 1783.8 hrs
M04	704BM041720	1992	1643.1 hrs 5635.35 NF CYC	7068.1 hrs 7859.8 NF CYC	1856.9 hrs 4364.65 NF CYC
OIL VALVE ASSY	292727300	5290	O/C	O/C	O/C
Pump and metering valve assembly	0292862620	26263	7wk, 5d (54 days) 9.4 hrs	18 Nov '33 8201.8 hrs	9y, 44wk, 4d (3599 days) 2990.6 hrs
TORQUE TRANSMITTER	9550175810	2934	O/C	O/C	O/C



The document reference is online, please check the correspondence between the online documentation and the printed version **Page 14 of 24**

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Airframe components installation history

description	part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due off
AIR COND BEIT	SPK633	N/A	6y, 26wk, 0d (2373 days) SLL 1800.0 hrs SLL	0 days 0.0 hrs	31 Aug '17 3150.7 hrs	28 Feb '24 4950.7 hrs
AVA INSPECTION	350A31-0033-06	SD607	6y, 0d (2192 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Mar '19 3647.7 hrs	31 Mar '25 6647.7 hrs
BLADE HORN	350A31-1877-03	MAP2270	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
BLADE HORN	350A31-1877-03	MAP2261	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
BLADE HORN	350A31-1877-03	MAP2256	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
CENTER SHAFT SECTION	350A34-0214-00	M1616	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
CROSSBEAM / LAMINATE INSP	350A38-1040-20	4060	6y, 0d (2192 days) TBO	0 days	31 Mar '19	31 Mar '25
ELT BATTERY REPLACEMENT	UNK	UNK	6y, 52wk, 1d (2556 days) SLL	13wk, 0d (91 days)	30 Nov '20	31 Aug '27
EPICYCLIC INSP	350A32-0120-00	M6675	12y, 0d (4383 days)	0 days	31 Aug '12	31 Aug '24
EPICYCLIC TBO	350A32-0120-00	M6675	24y, 0d (8766 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Aug '12 2993.7 hrs	31 Aug '36 5993.7 hrs
FREQUENCY ADAPTER	704A33-6401-00	19281	O/C	O/C	O/C	O/C
FREQUENCY ADAPTER	704A33-6401-00	19278	O/C	O/C	O/C	O/C
FREQUENCY ADAPTERS	704A33-6401-00	19256	O/C	O/C	O/C	O/C
FRONT SHAFT SECTION	350A34-0151-00	M1180	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
FUEL PUMP	SPK633	C25867	O/C	O/C	O/C	O/C



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 15 of 24

Airframe components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due off
HYD PULLEY BRG	704A33651206	R/N A13711	5y, 52wk, 1d (2191 days) SLL 3600.0 hrs SLL	0 days 0.0 hrs	5 Jun '20 3843.4 hrs	5 Jun '26 7443.4 hrs
LOWER SLEEVE	350A31-1850-02	M11819	6600.0 hrs SLL	0.0 hrs	0.0 hrs	6600.0 hrs
LOWER SLEEVE	350A31-1850-02	M11823	6600.0 hrs SLL	0.0 hrs	0.0 hrs	6600.0 hrs
LOWER SLEEVE	350A31-1850-02	M11820	6600.0 hrs SLL	0.0 hrs	0.0 hrs	6600.0 hrs
M/R ATTACH BOLT	350A37-1245-20	91329	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1245-20	91339	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1245-20	91338	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	98239	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	98453	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	98491	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	98483	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	9846	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1245-20	90706	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1245-20	90711	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1245-20	91279	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R ATTACH BOLT	350A37-1244-20	98465	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
M/R BLADE (BLUE)	355A11-0030-04	30545	20000.0 hrs SLL	1783.7 hrs	3294.5 hrs	21510.8 hrs
M/R BLADE (RED)	355A11-0030-04	30575	20000.0 hrs SLL	1783.7 hrs	3294.5 hrs	21510.8 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Page 16 of 24

Airframe components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due off
M/R BLADE (YELLOW)	355A11-0030-04	30566	20000.0 hrs SLL	1783.7 hrs	3294.5 hrs	21510.8 hrs
M/R BLADE PIN	350A31-1770-02	M3513	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R BLADE PIN	350A31-1770-02	M2443	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R BLADE PIN	350A31-1770-02	M3644	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R BLADE PIN	350A31-1770-02	M3578	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R BLADE PIN	350A31-1770-02	M1612	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R BLADE PIN	350A31-1770-02	M3515	12000.0 hrs SLL	0.0 hrs	3105.0 hrs	15105.0 hrs
M/R HUB 12 YEAR	355A31-0002-01	M2803	12y, 0d (4383 days) TBO	0 days	31 Mar '19	31 Mar '31
M/R SERVO O/H	SC0842	1285	20y, 0d (7305 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Aug '12 2993.7 hrs	31 Aug '32 5993.7 hrs
M/R SERVO O/H	SC8043	625	20y, 0d (7305 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Aug '17 3451.6 hrs	31 Aug '37 6451.6 hrs
M/R SERVO O/H	SC8042	1324	20y, 0d (7305 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Aug '17 3454.1 hrs	31 Aug '37 6454.1 hrs
M/R SERVO SLL	SC0842	1285	20000.0 hrs SLL	3932.6 hrs	2993.7 hrs	19061.1 hrs
M/R SERVO SLL	SC8043	625	20000.0 hrs SLL	5651.3 hrs	3451.6 hrs	17800.3 hrs
M/R SERVO SLL	SC8042	1324	20000.0 hrs SLL	6725.6 hrs	3454.1 hrs	16728.5 hrs
M/R SHAFT	350A37-1290-04	FR270	20000.0 hrs SLL 72000.0 LDG	0.0 hrs 0.0 LDG	0.0 hrs 0.0 LDG	20000.0 hrs 72000.0 LDG
M/R SHAFT ASSY	355A37-0006-00	M774	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 17 of 24

Airframe components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due off
M/R SHAFT BEARING	Y45RU10998S3M74	NR5294	3000.0 hrs SLL	0.0 hrs	2497.6 hrs	5497.6 hrs
MAST LOWER HOUSNG	350A37-1292-00	S1527	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
MAST UPPER HOUSUNG	350A37-1291-00	S1578	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
MGB BEVEL GEAR INSP	350A32-0350-02	M3398	12y, 0d (4383 days) TBO	0 days	31 Aug '12	31 Aug '24
MGB BEVEL GEAR TBO	350A32-0350-02	M3398	24y, 0d (8766 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	31 Aug '12 2993.7 hrs	31 Aug '36 5993.7 hrs
MGB FRONT BAR	704A33-633-075	864	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
MGB FRONT BAR	704A33-6332-62	7132	20000.0 hrs SLL	0.0 hrs	3647.7 hrs	23647.7 hrs
MGB OIL PUMP	350A32-0400-00	M3546	4000.0 hrs TBO	455.5 hrs	2993.7 hrs	6538.2 hrs
MGB REAR BAR	704A33-6330-75	7707	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
MGB REAR BAR	704A33-6330-75	7687	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
NON ROTATING SWASHPLATE	350A37-1002-07	S2068	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
REAR SHAFT SECTION	350A34-0212-00	PPT00609	O/C	O/C	O/C	O/C
ROTATING SWASHPLATE	350A37-1003-08	S1773	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
SCISSOR LOWER LINK	350A37-1127-02	S3945	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
SCISSOR LOWER LINK	350A37-1127-02	S3745	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
SCISSOR UPPER LINK	350A37-1126-02	S3977	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
SCISSOR UPPER LINK	350A37-1126-02	S3816	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version page 18 of 24

Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Airframe components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due or
SCISSORS DRIVE ADAPTER	355A37-1235-27	S102	20000.0 hrs SLL	0.0 hrs	0.0 hrs	20000.0 hrs
SPH THRUST BEARING	704A33-6332-08	LK26799	4600.0 hrs SLL	0.0 hrs	3785.3 hrs	8385.3 hrs
SPH THRUST BEARING	704A33-6332-08	LK27208	4600.0 hrs SLL	0.0 hrs	3785.3 hrs	8385.3 hrs
SPH THRUST BEARING	704A33-6332-08	LK27197	4600.0 hrs SLL	0.0 hrs	3785.3 hrs	8385.3 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51076	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51036	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51093	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51086	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51087	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
SPH THRUST BRG BOLT	350A31-1854-21	51091	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
STARFLEX	350A31-1918-00	M9143	3000.0 hrs SLL	0.0 hrs	2993.7 hrs	5993.7 hrs
STARTER GENERATOR	150SG122Q	10188	900.0 hrs TBO	0.0 hrs	4192.3 hrs	7192.3 hrs
SWASHPLATE BEARING	704A33-6511-58	NR5637	6600.0 hrs SLL	0.0 hrs	4621.7 hrs	5521.7 hrs
T/R BLADE	350A33-3002-02	M1995	10000.0 hrs SLL	0.0 hrs	0.0 hrs	6600.0 hrs
T/R BLADE	350A33-3002-02	M2003	10000.0 hrs SLL	0.0 hrs	0.0 hrs	10000.0 hrs
T/R BLADE	350A33-3002-02	M5607	10000.0 hrs SLL	0.0 hrs	0.0 hrs	10000.0 hrs
T/R BLADE	350A33-3002-02	M2007	10000.0 hrs SLL	0.0 hrs	2025.3 hrs	12025.3 hrs
T/R BLADE	350A33-3002-02	M2020	10000.0 hrs SLL	0.0 hrs	0.0 hrs	10000.0 hrs
T/R BLADE	350A33-3002-02	M2023	10000.0 hrs SLL	0.0 hrs	0.0 hrs	10000.0 hrs
					0.0 hrs	10000.0 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version.

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 19 of 24

Airframe components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Airframe time at install	Airframe time due off
T/R BLADE	350A33-3002-02	M2024	10000,0 hrs SLL	0,0 hrs	0,0 hrs	10000,0 hrs
T/R BLADE	350A33-3002-02	M5624	10000,0 hrs SLL	0,0 hrs	2369,3 hrs	12369,3 hrs
T/R BLADE	350A33-3002-02	2042	10000,0 hrs SLL	0,0 hrs	0,0 hrs	10000,0 hrs
T/R BLADE	350A33-3002-02	M2056	10000,0 hrs SLL	0,0 hrs	0,0 hrs	10000,0 hrs
T/R HUB ASSY	350A33-3100-01	M252	12y, 0d (4383 days) SLL 6900,0 hrs SLL	0 days 0,0 hrs	31 Jul '18 3597,9 hrs	31 Jul '30 10497,9 hrs
T/R HUB ASSY	350A33-3120-01	CU000852	6900,0 hrs SLL	0,0 hrs	0,0 hrs	6900,0 hrs
TAIL DRIVE SHAFT BRG'S QTY 5	593404	N/A	6y, 0d (2192 days) SLL 3600,0 hrs SLL	0 days 0,0 hrs	6 Oct '23 4733,8 hrs	6 Oct '29 8333,8 hrs
TAIL GEARBOX TBO	350A33-0501-01	M1461	24y, 0d (8766 days) TBO 4000,0 hrs TBO	0 days 0,0 hrs	20 Apr '22 4294,0 hrs	19 Apr '46 8294,0 hrs
UPPER SLEEVE	350A31-1850-03	M11699	6600,0 hrs SLL	0,0 hrs	0,0 hrs	6600,0 hrs
UPPER SLEEVE	350A31-1850-03	M11394	6600,0 hrs SLL	0,0 hrs	0,0 hrs	6600,0 hrs
UPPER SLEEVE	350A31-1850-03	M11686	6600,0 hrs SLL	0,0 hrs	0,0 hrs	6600,0 hrs



The document reference is online, please check the correspondence between the online documentation and the printed version page 20 of 24

Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Engine 1 components installation history

Description	Part no.	Serial no.	Limits	Time on part at install	Engine 1 time at install	Engine 1 time due off
ADJUSTED FUEL VALVE	0292958070	1889	O/C	O/C	O/C	O/C
BLEED VALVE	9550164950	10019	O/C	O/C	O/C	O/C
DEEC UNIT	70BMF01020	2240	O/C	O/C	O/C	O/C
FREEWHEEL UNIT	0292900020	5422	15y, 0d (5479 days) TBO 3500.0 hrs TBO	1y, 0d (366 days) 0.0 hrs	30 Nov '12 3495.0 hrs	30 Nov '26 6995.0 hrs
FUEL FILTER BYPASS SWITCH	9550172000	A4882	10y, 0d (3653 days) SLL	0 days	15 Feb '22	16 Feb '32
LOW PRESSURE FUEL SWITCH	9550179130	6309	10y, 0d (3653 days) SLL	0 days	12 Apr '22	12 Apr '32
LOW PRESSURE SWITCH	9550170830	2322	O/C	O/C	O/C	O/C
M03	70BM032030	11111	16y, 26wk, 2d (6028 days) TBO 3500.0 hrs TBO 10000.0 NG CYC SLL	0 days 1235.0 hrs 1939.55 NG CYC	27 Jul '21 4511.2 hrs 14943.32 NG CYC	26 Jan '38 6776.2 hrs 23003.77 NG CYC
M05	70BM052000	1981	15y, 0d (5479 days) TBO 3500.0 hrs TBO	0 days 0.0 hrs	29 Nov '12 3495.0 hrs	30 Nov '27 6995.0 hrs
M01	70BM010030	1982	15y, 0d (5479 days) TBO 3500.0 hrs TBO	0 days 0.0 hrs	30 Nov '12 3495.0 hrs	1 Dec '27 6995.0 hrs
M02	70BM022010	2001	15y, 0d (5479 days) TBO 22000.0 NG CYC 3500.0 hrs TBO	0 days 0.0 NG CYC 0.0 hrs	30 Nov '12 12851.0 NG CYC 3495.0 hrs	1 Dec '27 34851.0 NG CYC 6995.0 hrs
M04	704BM041720	1992	3500.0 hrs TBO 10000.0 NF CYC SLL	943.1 hrs 5120.15 NF CYC	4511.2 hrs 2979.95 NF CYC	7068.1 hrs 7859.8 NF CYC
OIL VALVE ASSY	292727300	5290	O/C	O/C	O/C	O/C
Pump and metering valve assembly	0292862620	26263	10y, 0d (3653 days) TBO 3000.0 hrs TBO	0 days 0.0 hrs	18 Nov '23 5201.8 hrs	18 Nov '33 8201.8 hrs
TORQUE TRANSMITTER	9550175810	2934	O/C	O/C	O/C	O/C



The document reference is online, please check the correspondence between the online documentation and the printed version

Airbus EC130 B4 registration N130CZ
Report created 11 January 2024, 10:09am

Page 21 of 24

What's Due

Within 12 months, 100 hours or 100 of any cycle type

Aircraft totals at time of report

Aircraft total time: 4768.20 hrs
LANDINGS: 11897.0 LDG

Engine pos. 1

Serial no. 23379
HOURS: 5211.2 hrs
NG CYCLES : 15985.42 NG CYC
NF CYCLES: 3495.15 NF CYC

Component Description

AIR COND BELT

Part no.	Serial no.	Time due	Time to run
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SPK633	N/A	4950.7 hrs 28 February 2024	182.5 hrs 7wk, 0d (49 days)
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EPICYCLIC INSP

350A32-0120-00	M6675	31 August 2024	33wk, 2d (233 days)
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MGB BEVEL GEAR INSP

350A32-0350-02	M3398	31 August 2024	33wk, 2d (233 days)
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Inspection No. & Description

Interval	Time due	Time to run
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1. MGB OIL FILTER REPLACEMENT (airframe)

600.0 hrs 2 years, 0 days (731 days)	4943.6 hrs 06 June 2024	175.4 hrs 21 weeks, 0 days (147 days)
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11. 150HR / 12 MONTH INSPECTION (airframe)

150.0 hrs 1 year, 0 days (366 days)	4828.1 hrs 21 July 2024	59.9 hrs 27 weeks, 3 days (192 days)
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18. 30 DAY FIRE EXT CHECK (airframe)

4 weeks, 2 days (30 days)	12 January 2024	1 day
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19. 1 YEAR FIRE EXT WEIGHT CHECK (airframe)

1 year, 0 days (366 days)	01 November 2024	42 weeks, 1 day (295 days)
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24. MGB OIL CHANGE (airframe)

600.0 hrs 2 years, 0 days (731 days)	4943.6 hrs 06 June 2024	175.4 hrs 21 weeks, 0 days (147 days)
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27. M/R ROTOR BLADE PIN INSPECTION / LUBE (airframe)

150.0 hrs 26 weeks, 0 days (182 days)	4828.1 hrs 16 January 2024	59.9 hrs 5 days
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28. T/R GEARBOX OIL CHANGE (airframe)

600.0 hrs 2 years, 0 days (731 days)	4943.6 hrs 06 June 2024	175.4 hrs 21 weeks, 0 days (147 days)
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38. TGB Chip detector check (airframe)

100.0 hrs 1 year, 0 days (366 days)	4858.8 hrs 14 November 2024	90.6 hrs 44 weeks, 0 days (308 days)
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39. MGB Chip detector check (airframe)

100.0 hrs 1 year, 0 days (366 days)	4858.8 hrs 14 November 2024	90.6 hrs 44 weeks, 0 days (308 days)
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What's Due

Within 12 months, 100 hours or 100 of any cycle type

44. 7 Day / 10hr AIRFRAME INSPECTION (airframe)	10.0 hrs 1 week, 0 days (7 days)	4778.2 hrs 17 January 2024	10.0 hrs 6 days
AD. AD 2020-23-09 LH CABIN SLIDING DOOR (airframe)	165.0 hrs	4843.1 hrs	74.9 hrs
AD. AD 2020-24-07 FADEC TWIST GRIP (airframe)	600.0 hrs	4836.3 hrs	68.1 hrs
AD. AD 2022-01-01 MAIN ROTOR PITCH ROD SCREW (airframe)	10.0 hrs	4776.7 hrs	8.5 hrs
ASB. ASB 67A021 ACTUATING ROD (airframe)	150.0 hrs	4828.1 hrs	59.9 hrs
ICA. ICA BLADE TIE DOWN INSTALLATION (airframe)	600.0 hrs 2 years, 0 days (731 days)	4943.6 hrs 06 June 2024	175.4 hrs 21 weeks, 0 days (147 days)
ICA. ICA BLADE TIE DOWN INSTALLATION (airframe)	150.0 hrs 1 year, 0 days (366 days)	4828.1 hrs 21 July 2024	59.9 hrs 27 weeks, 3 days (192 days)
ICA. ICA CONCORDE RG350 BATTERY INSPECTION (airframe)	1000.0 hrs 1 year, 0 days (366 days)	5758.8 hrs 14 November 2024	990.6 hrs 44 weeks, 0 days (308 days)
ICA. ICA WHELEN LED TAXI AND LANDING LIGHT (airframe)	50.0 hrs 1 year, 0 days (366 days)	4783.5 hrs 03 October 2024	15.3 hrs 38 weeks, 0 days (266 days)
SB. SB 05-016 COLLECTIVE PITCH (airframe)	2 years, 8 weeks, 6 days (792 days)	29 April 2024	15 weeks, 4 days (109 days)
SB. SB 05-026 STARTER GEN BRUSHES (airframe)	350.0 hrs	4842.3 hrs	74.1 hrs
SB. SB 05A009 TWIST GRIP MICRO SWITCH INSP (airframe)	330.0 hrs 26 weeks, 0 days (182 days)	5063.8 hrs 05 April 2024	295.6 hrs 12 weeks, 1 day (85 days)
SB. SB 05A031 165HR SLIDING DOOR OPENING MECHANISM (airframe)	165.0 hrs	4843.1 hrs	74.9 hrs
4. 25HR HEALTH CHECK (engine 1)	25.0 hrs	5233.4 hrs	22.2 hrs
5. 30HR M01 & M02 CRP PLUG CHECK (engine 1)	30.0 hrs	5231.8 hrs	20.6 hrs
6. ENGINE 300HR INSPECTION (engine 1)	300.0 hrs 1 year, 0 days (366 days)	5293.9 hrs 18 January 2024	82.7 hrs 1 week, 0 days (7 days)
7. 600HR ENGINE INSPECTION (engine 1)	600.0 hrs	5290.7 hrs	79.5 hrs
40. ENGINE 150HR INSPECTION (engine 1)	150.0 hrs	5271.1 hrs	59.9 hrs
45. ENGINE 7 DAY / 15HR INSPECTION (engine 1)	15.0 hrs 1 week, 0 days (7 days)	5226.2 hrs 17 January 2024	15.0 hrs 6 days



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Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

What's Due

Within 12 months, 100 hours or 100 of any cycle type

AD. AD 2018-12-01 REPLACEMENT OF PRE MOD TU 178 HMU (engine 1)	2200.0 hrs 6 years, 0 days (2192 days)	6280.3 hrs 29 September 2024	1069.1 hrs 37 weeks, 3 days (262 days)
SB. SB 292-72-2823 START ELECTRO VALVE (engine 1)	150.0 hrs	5271.1 hrs	59.9 hrs
9. 30 DAY KANNARD ELT SELF TEST (instrument)	4 weeks, 2 days (30 days)	11 January 2024	0 days
15. 91.413 - 2 YEAR TRANSPONDER CHECK (instrument)	2 years, 0 days (731 days)	31 July 2024	28 weeks, 6 days (202 days)
16. 91.411 2 YEAR PITOT / STATIC (instrument)	2 years, 0 days (731 days)	31 July 2024	28 weeks, 6 days (202 days)
29. 1 YEAR 91.207 ELT INSPECTION (instrument)	1 year, 0 days (366 days)	12 April 2024	13 weeks, 1 day (92 days)
37. GPS NAV DATA BASE UPDATES (instrument)	4 weeks, 0 days (28 days)	19 January 2024	1 week, 1 day (8 days)



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Airbus EC130 B4 registration N130CZ

Report created 11 January 2024, 10:09am

Page 24 of 24