



A/C Registration: N102SU

A/C Make: Hughes

A/C Model: 369D

A/C S/N: 700736D

Hobbs Time: 812.0

Date: 02/14/2024

1. C/W FAR 91.413, ATC Transponder Test and Inspection, IAW FAR 43 Appendix F, no discrepancies.
Transponder p/n: 011-03300-40 s/n: 3EE424481

I certify this Aircraft is approved for return to service with respect to work performed.
Details on File under w/o no. 2569

Donovan Richard

N102SU

S/N: 700736D

ENG. S/N: CAE-837088

Hobbs: 821.4

TTAF: 9385.2

TTENG: 7646.6

Date: 2/25/24

TE's: 59126

CYC: 5,436

Hook: 2,361.3

Complied with **ANNUAL** inspection, no defects noted. I certify that the Aircraft identified above has been inspected IAW ANNUAL inspection requirements and Appendix D to Part 43, or other FAA approved programs, and was found to be in airworthy condition.

Signed



Adam Hayhurst AP/I



N102SU

S/N: 700736D

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Complied with 100hr airframe inspection and 150hr engine inspection. Checked Bi Weekly AD's no defects noted at this time.

Complied with AD-89-02-01 Effective date July 19 1990 Amendment 39-6341 100hr recurring inspection complied with on main rotor hub retention strap assemblies per AD para. (a) no defects noted at this time next due at ACFT TT: 9485.2.

Complied with AD-94-24-04 Effective date December 13 1994 Amendment 39-9077 complied with AD per para, (d) 100hr recurring inspection of torque strip for slippage marks on tail rotor pitch control assembly no defects noted at this time next due at ACFT TT: 9485.2.

Complied with AD-2007-12-23 Effective date July 19, 2007 Amendment 39-15101 100hr recurring inspection completed on landing gear button plug holes per AD para, (b) no defects noted at this time next due at ACFT TT: 9485.2.

Complied with AD-2019-05-04 Effected date April 17 2019 Amendment 39-19586 completed 100hr recurring inspection on main rotor blade trim tabs for cracks per AD para.e (1) (2) no defects noted at this time. Next due at ACFT TT: 9485.2.

Installed Upper Filter assy. P/N 102400 S/N 1382 and FWD Filter assy. P/N102450-101 S/N 1327 IRT MD500-IBF-KIT-OMM/IPL Rev. B.

Replaced brushes in starter/gen IAW CSP-HMI-3 Chapt. 96-10-00 ops check good.

Checked and cleaned tail rotor transmission chip detectors main rotor transmission chip detectors and engine chip detectors no defects noted ant this time.

Performed tail rotor and main rotor dynamic balance to below .15 IPS within limit no defects at this time. Complied with ICAs for the equipment installed IAW STC service instructions.

All work performed IAW MDHI-CSP-HMI-2 chapter 12-00-00 and 5-00-00 table 1 Reissue 1 dated 31 2022 TR23-001 and Rolls-Royce Allison 10W2 series operation and maintenance manual chpt 72-00-00 table 603 Rev 25 dated 1 June 2020 and TR dated January 31 2023. I certify the aircraft/appliance Identified above was inspected in accordance with 100hr and 150 hr inspection by the current inspection program recommended by the manufacturer and with current maintenance requirements and is determined to be in airworthy condition.

Signed  Robert Lane AP 

CONTINUED AIRWORTHINESS

100- HOUR OR ANNUAL INSPECTION CHECKLIST

1. 100- Hour or Annual Inspection

This check list is to be used for the 100- Hour Inspection or the Annual Inspection, as defined by FAR, Part 43, Appendix D. This checklist, when completed, must be kept as a permanent part of the helicopter records. Adherence to Maintenance Manual information is mandatory, and the manual must be consulted with the checklist.

NOTE:

- The Chapter / Section column of Table 1 is for reference, unless a specific inspection requirement is called out.
- Ref. the applicable Rolls- Royce engine inspection checklist for necessary engine maintenance. (Ref. 01- 00- 00, Table 2)

Table 1. 100- Hour or Annual Inspection

Registration No. <u>N10254</u> Serial No. <u>700736D</u> Helicopter Hours <u>9385.2</u> TEs <u>59126</u>			
Model	Requirement	Chapter- Section	Initials
GENERAL			
ALL	Make sure there is compliance with all applicable airworthiness directives, service bulletins, and special inspections.	N/A	
ALL	Review helicopter maintenance records for recorded discrepancies and correct discrepancies as applicable.	N/A	
ALL	Ref. the applicable manufacturer publications for detailed requirements for inspection of the engine, the starter/generator, battery, avionics, and all installed STC equipment.	01- 00- 00	
ALL	Make sure to obey the component mandatory retirement schedule.	04- 00- 00	
ALL	Calculate and record TEs or RINs, of all affected components in Table 2.	04- 00- 00	
ALL	Make sure there is compliance with the component overhaul schedule.	05- 10- 00	
ALL	Make sure all the placards and markings are installed.	11- 00- 00	
ALL	Thoroughly clean the helicopter and engine before the start of the inspection.	20- 20- 00	
ALL	Remove the trim panels, covers, and access panels as necessary.	52- 50- 00	
EXTERIOR			
ALL	* Examine the air intake for cleanliness and foreign matter. * Examine the visible portion of engine compressor inlet for foreign object damage.	71- 10- 00	
CAUTION: Make sure that the compressor cover is installed to prevent FOD.			
ALL	Examine the engine air plenum chamber for: * Damage and cleanliness. * Wear and installation of internal components. * Particle separator mount structure for cracks or damage.	53- 30- 00 53- 30- 30 71- 10- 00	

Section

05-20-00

Continued Airworthiness

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____		Serial No. _____		Helicopter Hours _____		TEs _____	
Model	Requirement					Chapter-Section	Initials
ALL	Examine the fuselage upper surfaces for: * Damage and condition. * Mast base drain holes clean and free of debris (blow air thru holes to make sure no clogging). * Engine air inlet fairing free from damage. No delamination noted. * Engine air bypass door operationally checked. Seals free from damage. Cable system checked for smooth operation. * Engine access doors for correct operation of latches and closure, distortion, damage, cracks, and installation.					52 53 71- 10- 05 71- 10- 60 52- 40- 00	
ALL	Examine the fuselage for: * Damage and condition. * Compartment fresh air vents in doors and front of canopy for ease of operation and installation. * Fuel cell vent fairings free of obstructions and obvious damage. * Pilot and passenger/cargo compartment doors for condition of door glass, vents and correct operation of latches and locks. * Examine the door- latching mechanism, door hinges, and pins for play and wear with a bright light and magnification glass. Do a check inside the helicopter, with the doors closed and locked, to make sure the door pin lock tab is engaged with the slot in the frame. * No evidence of oil leakage around fuselage drain holes.					52, 53 52- 10- 00	
500/600N	Examine the anti- torque fan inlet for: * Screen for cleanliness and damage. * Installation of hardware. * Interior of fan inlet for cleanliness and damage. * Driveshaft cover for damage.					53- 30- 30	
ALL	* Tailboom and fuselage at attach points for gaps. * Tailboom skin around stabilizer fittings for cracks. * Tailboom attachment- to- fuselage for installation, evidence of corrosion or cracks, loose rivets or buckling.					53- 40- 00	
369D/E/FF	Do the Upper Fuselage and Tailboom Control Linkage Inspection and do an inspection of the Sta. 142.0 tail rotor control bellcrank support for cracks or damage with a bright light and mirror. (Ref. 67- 20- 10, Inspection and Check, 1.)					67- 20- 10	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____	Serial No. _____	Helicopter Hours _____	TEs _____
Model	Requirement	Chapter-Section	Initials
500/600N	* Examine the thruster cones and tip cap (500N only) for damage and installation. Do an inspection for wear between the thruster cones and tailboom at the points of contact. * Using a flashlight and 10X magnification glass, inspect horizontal stabilizer mounting brackets for cracks (pay particular attention to the forward inboard legs). * Using a bright flashlight, inspect fore and aft radii of the lower portion of the three upper slot bridges for cracks, illuminate area under the flap. The flap may be raised slightly, using finger pressure only, to aid in checking this area. * Using a bright light and 10X magnification glass, inspect the four tailboom attachment lugs for cracks and fiber damage. Pay particular attention to area on top of the lug from the radius block to 2 inches aft. * Tailboom closeout fairings for installation of attachment hardware. Inspect for damage and chafing between closeout fairing and tailboom.	53-40-30 53-50-30	N/A
369D/E/FF	Examine the horizontal stabilizer and tip plates for: * Horizontal stabilizer for skin damage and loose rivets. (Ref. 53-50-10, Maintenance Practices, 7.B.) * Horizontal stabilizer attach lug fittings for cracks using a bright light and 10x magnification glass. (Ref. 53-50-10, Maintenance Practices, 7.B.) * Tip plates for damage and installation. (Ref. 53-50-10, Maintenance Practices, 7.A.)	53-50-10	[REDACTED]
500/600N	Examine the horizontal stabilizer for: * Skin damage and loose rivets. * Mounting fittings for cracks and installation. * Stabilizer attach bolts for installation.	53	[REDACTED]
369D/E/FF	Examine the vertical stabilizers for: * Damage to leading and trailing edges and damaged stressed side panels (no repair of side panels permitted). * Mounting fittings for cracks and installation. * Tail skid for obvious damage and installation. (Ref. 53-50-10, Maintenance Practices, 7.C.) * Anti-collision light mount for cracks.	53-50-10	[REDACTED]
500/600N	Examine the vertical stabilizers for: * Damage to the leading or trailing edges and damaged side panels. * Cracks in skin, no cracks permitted (pay particular attention to areas around mounting bolts). * Stabilizer attach bolts for installation. * Stabilizer mount bushings for wear, installation and correct installation. * Too much play in control linkage, bearings, and installation.	53	[REDACTED]

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____		Serial No. _____		Helicopter Hours _____		TEs _____	
Model	Requirement					Chapter-Section	Initials
LANDING GEAR							
ALL	Examine the landing gear skid tubes and fairings for: * Wear and damage more than permitted limits. * Upper fairing fillets for freedom of movement and general condition. * Strut attachment points for installation and pivot (swivel) bearings for too much play. * Landing gear dampers for correct extension, installation, and fluid leakage. * Pivot bearings for too much play. * Passenger steps for installation and damage.					32	
369D/E/FF 500N	Remove the landing gear fairing fillets and examine landing gear strut assemblies for cracks and damage.						
369D/E/FF 500N	For helicopters 369D: 001 & subs. 369E: 0001 thru 0528, 369FF: 0001 thru 0114 and 500N: 001 thru 077: Remove plug button from inboard of fairing assembly. Examine rivet hole in underside of strut for cracks with a bright light and 10X magnification glass. If a crack(s) are found, replace and discard strut.						
CABIN							
ALL	Examine the compartment heat and anti-icing valve controls for: * Easy and correct operation and rigging. * Heating system heat diffusers for installation.					21	
ALL	* Examine the seat belts for condition and installation. * Examine the inertia reels for condition and correct extension/retraction.					25	
ALL	Examine the pilot/copilot controls for: * Wear, looseness, and general condition of control rods and rod end bearings. * Quick-release pins for condition. * Cyclic, collective, and anti-torque controls for free movement. * Cyclic trim actuators for installation. * Collective torque tube, support bracket, and bungee support bracket for cracks, gouges, or other visible damage in attach lug and bungee support bracket attach areas; gaps between bracket and cradle cap of collective torque tube (use a bright light and mirror). * N ₁ power controls for obvious damage. * Do a check for minimum cyclic friction adjustment (resistance to turning spring with fingers). * Flight control system one-way lock (Uniloc) for oil leakage, condition, and installation. Fluid reservoir 1/2 to 3/4 full; replenish if low.					67 76	
NOTE: It is permitted to use a borescope to examine the tail rotor pedals support bracket.							
ALL	* Examine the LH and RH tail rotor pedals support bracket with a 10X magnification glass, mirror, and bright light for cracks and corrosion. (Ref. Tail Rotor Pedals Support Bracket Inspection)					67-20-10	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____	Serial No. _____	Helicopter Hours _____	TEs _____
Model	Requirement	Chapter-Section	Initials
ALL	Examine the pilots interconnecting cyclic pitch torque tube assembly: * Do the Cyclic Control System Operations Check. (Ref. 67- 10- 00, Inspection and Check, 13.) * Examine the torque tube assembly for corrosion, cracks, and installation. * Make sure the bearings freely move, do not bind, have lubrication, and there is no discoloration.	67- 10- 00	
NOTE: With main rotor blades stationary, some friction drag is felt in the cyclic. The collective also has some resistance, plus resistance of the collective bungee spring. Heavy drag is an indication of droop stop deformation or binding by droop stop pounding.			
ALL	Examine the engine N ₁ and N ₂ power controls (600N engine power controls) for: * Free movement, full travel, installation, obvious damage, and correct rigging. * Pilot's and copilot's throttle rigging checks at FULL , GROUND IDLE , and CUTOFF positions.	76	
MAIN ROTOR			
ALL	(Ref. 04- 00- 00, Airworthiness Limitations, Table 1., for strap pack lamination airworthiness limits, and 62- 20- 00, Inspection, 5.; and 62- 20- 60, Inspection, 4.) * Examine the retention strap assemblies for breaks or cracks in the strap pack laminations. * Examine the visible portions of both the lead and lag legs of the pack in each pitch housing. * Examine the outboard ends of the retention strap assemblies for gaps between the pack laminates.	04- 00- 00 62- 20- 00 62- 20- 60	
ALL	Make sure that main rotor blade and damper attach pins are tight and levers correctly locked.	62	
ALL	* Swashplate for evidence of galling or corrosion of spherical bearing, and seals for deterioration and evidence of grease leakage. * Upper and lower dust boots free from damage and installation. * Installation of swashplate interrupters and magnetic pick-up.	62	
ALL	* Examine the drain holes in main rotor blade aft tip cap and vent holes in the lower skin for clogs. * Examine the main rotor tip caps for installation and corrosion.	62	
369D/E/FF 500N	* Examine the main rotor hub fairing for cracks, damage, and installation.	62	
ALL	* Examine the main rotor mixer control push-pull rods, links, scissors, and bellcranks for too much bearing play, bent rods or links, worn bushings, and cracked bellcranks or brackets. * Make sure all rod ends centered.	62 67	
ALL	Fully examine the trailing edge and tabs for nicks, scratches, and cracks that begin from the trailing edge. (Ref. 62- 10- 00, Inspection and Check, 1.)	62- 10- 00	

Table 1. 100- Hour or Annual Inspection (Cont)

Registration No. _____ Serial No. _____		Helicopter Hours _____	TEs _____
Model	Requirement	Chapter-Section	Initials
ALL	Examine main rotor blade abrasion strips for bonds on lower and upper surfaces with a bright light and 10X magnification glass, and by tapping bond lines. Blisters, bubbles, or a lifted abrasion strip are indications of a void(s). (Ref. 62- 10- 00, Inspection and Check, 1.)	62- 10- 00	
ALL	Examine the tip area of main rotor blades for evidence of corrosion; carefully examine mating area of blade skin-to- tip weight interface; do a check of the integrity of sealant coating. (Ref. 62- 10- 00, Inspection and Check, 5.)	62- 10- 00	
WARNING: Examine root fitting, attach lugs, and doublers for cracks and installation with a bright light and 5X to 10X magnification glass.			
ALL	Do an inspection of the main rotor blade root fittings, attach lug, and lead-lag link attach lug every 100 hours. Carefully examine the lower side of the root fitting. (Ref. 62- 10- 00, Inspection and Check, 7.)	62- 10- 00	
ALL	* Examine the main rotor hub feathering bearings for too much wear. (Ref. 62- 20- 00, Inspection and Check, 3.) * Examine the main rotor droop stop ring for corrosion, dents, and scratches. * Examine the main rotor droop stop striker plate rollers for play and too much wear. * Examine the main rotor droop stop follower attachment pins for correct installation. * Examine the main rotor droop stop plunger for corrosion, dents, and scratches. * Examine the main rotor droop stop roller bearing, roller shaft, and cotter pin for condition, damage, installation.	62- 20- 00 62- 20- 60	
ALL	Examine the main rotor blade damper assemblies for obvious damage, installation, and too much play in blade and pitch housing bearings, bonding of elastomeric material, and corrosion. (Ref. 62- 20- 00, Inspection and Check, 7.; and 62- 20- 60, Inspection and Check, 6.)	62- 20- 00 62- 20- 60	
ALL	Examine all main rotor hub assembly lead-lag links for corrosion, discoloration, pitting, intergranular cracks, or stress corrosion cracks with a bright light and 5X magnification glass. Discoloration or pitting is evidence of more than superficial corrosion, and the main rotor hub must be removed for replacement of lead-lag links. (Ref. 62- 20- 00, Inspection and Check, 3.; and 62- 20- 60, Inspection and Check, 2.)	62- 20- 00 62- 20- 60	
ALL	Do a check of the main rotor hub bearings for roughness by rotating main rotor assembly several times by hand and listen for unusual noise(s). (Ref. 62- 20- 00, Inspection and Check, 3.; and 62- 20- 60, Inspection and Check, 2.)	62- 20- 00 62- 20- 60	
NOTE: Do not confuse with normal no- load transmission and overrunning clutch noise.			
ALL	Examine the main rotor pitch control rod assemblies, and upper and lower rod end bearing for evidence of axial play and for extrusion, displacement, or damage to the bearing teflon liner. Make sure that all rod ends are centered and are safetied with lockwire. (Ref. 62- 30- 00, Inspection and Check, 4.; and 62- 30- 60, Inspection and Check, 4.)	62- 30- 00 62- 30- 60	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____ Serial No. _____ Helicopter Hours _____		TEs _____	
Model	Requirement	Chapter-Section	Initials
DRIVE TRAIN			
ALL	Examine the main transmission lubrication and cooling system for: * Main transmission case and cooling installation for evidence of leakage and installation of attachment. * Oil cooler blower, mount, ducting, and hardware for installation and damage. * Oil lines for chafing damage. * Clamps attached to oil lines for evidence of cushion wear or deterioration – if found, remove clamp and do an inspection of the tube under clamp for chafing damage). * Pressure switch for installation and deterioration. * Temperature sensor for installation and damage. * Wiring for chafes.	63	
369D/E/FF 500N	* Examine the tach generator for installation and deterioration. * Examine the wiring for chafes. <i>Replaced Brushes</i>	63	
ALL	Examine the overrunning clutch for: * Evidence of oil leakage. * Correct operation: turn rotor in forward direction by hand – engine must decouple – turn rotor in reverse direction – engine must rotate (listen for turbine noise during reverse rotation). Rotor brake disc must not drag.	63- 10- 00	
NOTE: Normal seal drag can be sufficient to turn the engine at a low rpm.			
369D/E/FF 500N	For helicopters equipped with a 369A5350 overrunning clutch, regrease the clutch splines.	63- 10- 00	
ALL	Examine the engine- to- main transmission drive shaft couplings and shaft for condition and installation. <u>Bendix couplings only:</u> examine the shaft coupling diaphragms for scratches, nicks, or cracks. (Ref. 63- 10- 00, Inspection and Check, 3.)	63- 10- 00	
500/600N	* Examine the main transmission- to- fan transmission drive shaft for dents, bulkhead chafes, and obvious damage. * Examine the inter- connect drive shaft for dents and obvious damage. * Make sure there is free movement of the control rod thru the interconnect drive shaft.	63- 10- 00	
369D/E	<u>Bendix couplings only:</u> Do a check for tail rotor blade tip movement more than 0.750 inch (19.05 mm), without main rotor blade movement, when tail rotor blades are rocked back and forth in plane of rotation.	63- 10- 00	
369D/E/FF	Examine the tail rotor drive shaft for: * Evidence of buckling, dents, bulkhead chafing and obvious damage. * Align the aft coupling index stripe with the corresponding tail rotor transmission stripe and make sure that the bulkhead- to- drive shaft index stripes align. (Ref. 63- 15- 10, Inspection and Test, 2.)	63- 15- 10	

Table 1. 100- Hour or Annual Inspection (Cont)

Registration No. _____ Serial No. _____ Helicopter Hours _____		TEs _____	
Model	Requirement	Chapter-Section	Initials
ALL	Examine the rotor brake for: * Pucks and disc for wear and general condition. * Hydraulic lines for installation and leaks. * Master cylinder for leaks. * Air in system (spongy feel at brake actuating handle when force is applied).	63- 22- 00	
ANTI-TORQUE			
Tail Rotor System			
369D/E/FF	Do an inspection of the tail rotor transmission for: * Corrosion, cracks, leaks, and other damage. * Examine the output shaft for scratches and scores. * Examine the tailboom extension installation (369FF). * Do a check of each tail rotor transmission mounting nut (369D/E) and tailboom extension mounting nut (369FF) torque.	63- 25- 10	
369D/E/FF	Examine the tail rotor blades for: * Evidence of damage, including leading edges, trailing edges, skin. * Open vent and drain holes. * Loose or damaged tip caps. * Rivets that attach the tip cap for installation and condition. * Abrasion strips free of damage, no excessive erosion noted, and no separation in bond around edges or at tip end of blade (Ref. Tail Rotor Blade Inspection). * While holding hub stationary, do a check of the tail rotor blade pitch bearings for lead-lag play more than 0.250 inch (6.35 mm) at blade tip. If too much play is found, remove blades, replace pitch bearings, and examine the hub-to-pitch bearing contact surface of hub. (Ref. CSP-COM- 5, 64- 20- 10 or 64- 20- 20)	64- 10- 00	
369D/E/FF	Examine the drive fork for; * Elastomeric bearing elements for bond failure. * Apply teetering force by hand (stop-to-stop) to rotor blades and examine the elastomers for radial-molded ridges on each bearing face. Discontinuity in molded ridges indicates bearing failure. There must be no apparent motion between the cage and fork – observed motion is an indication of bond failure.	64- 20- 00	
369D/E/FF	Examine the tail rotor and pitch control assembly for: * Binding and unusual sounds (teeter blades to check for binding). * Control rod, pitch control links, hub and drive fork for play or damage. * Boots for installation and deterioration. * Retaining nut and lockwasher secure (no broken tangs noted and nut has not rotated, visual inspection of torque stripe). * Pitch control for evidence of seal rotation or loss of grease.	64- 30- 00	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____ Serial No. _____ Helicopter Hours _____		TEs _____	
Model	Requirement	Chapter-Section	Initials
NOTE: Light swelling, pock marks, and crumbs are surface conditions and are not an indication of bearing failure.			
369D/E	If equipped with conical-type teetering bearings, do a torque check of the teeter bolt. * Conical bearings for axial or radial play (no play permitted).	64-30-00	N/A
369D/E/FF	Do the Tail Rotor Balance. (Ref. 18-20-00, Maintenance Practices, 1.)	18-20-00	
NOTAR Anti-Torque System			
500/600N	* Turn the rotor system and listen for unusual noises. * Examine the fan assembly for cleanliness and damage. * Examine the fan blades for too much play. * Examine the fan seal for cleanliness, cracks, damage, and corrosion. * Do a check of the gap between fan blades and tip seal. * Do a check of the gap between fan blades and hub.	64-25-30	N/A
NOTE: If one of these gaps for a blade is more than the average gap of the other blades by more than 0.100 inch (2.54 mm), remove and examine the tension-torsion strap for that blade.			
500/600N	Do the Fan Blade Inspection (100-Hour). (Ref. 64-25-30, Inspection and Check, 4.)	64-25-30	N/A
500/600N	* Examine the fan transmission for corrosion, oil leakage, cracks, damage, and installation on mounting frame. * Examine the drain line for cracks and installation.	63-25-30	N/A
500/600N	Remove rotating cone and tip cap (500N) and examine: * Cables, cable ends and pulleys for condition and installation. Do the Forward and Aft Cable Assembly Inspection (ref. 67-20-30, Inspection and Check, 7.) and Sector Assembly and Control Cables and Drum Assembly Inspection (ref. 67-20-30, Inspection and Check, 10.). * Aft cable ends and turnbuckles for condition and installation. Replace components with evidence of corrosion pitting. * Rotating cone control tubes and cables for freedom of movement and unusual sounds. Install the rotating cone and tip cap (500N).	67-20-30	N/A
ELECTRICAL			
NOTE: When possible, use an auxiliary power source, not a battery, during the POWER ON inspection.			
ALL	XMSN OIL TEMP, FUEL FILTER , and CHIPS warning lights; electrical circuits for continuity to lamps by connecting jumper wire from each sender or chip detector terminal stud to an unpainted grounding surface; do the Caution/Warning System Operational Check of each light for illumination. (Ref. 95-00-00, Inspection and Check, NO TAG)	95-00-00	
369E/FF	XMSN OT, FUEL FILTER, ENGINE CHIP, ROTOR CHIP , and AFT CHIP CAS messages; electrical circuits for continuity to DAU by connecting jumper wire from each sender or chip detector terminal stud to an unpainted grounding surface; do a check of each warning/caution indicator CAS message and make sure the MCMW light illuminates. Do the Ground Functional Tests - Discrete Verifications (Glass Cockpit). (Ref. 95-00-00, Adjustment and Test, 7.)	95-00-00	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____		Serial No. _____	Helicopter Hours _____	TEs _____
Model	Requirement	Chapter-Section	Initials	
ALL	Push PRESS TO TEST switch: all caution and warning lights ON ; depress instrument light rheostat knob; make sure the CAUTION lights dim.	95		
369D/E/FF 500N	Do an operational check of the automatic reignition system; igniter noise heard and reignition indicator light functions. Reset as necessary.	PFM		
369D/E/FF 500N	Do a check of the TOT indication system for correct calibration. (Ref. 95-30-00, Adjustment and Test, 2.A. or 11.A. or 11.B.)	95-30-00		
600N	Do a check of the TOT indicating system for correct calibration. (Ref. 95-30-00, Adjustment and Test, 10. and 11.C.)	95-30-00		
CAUTION: Do not leave landing light ON for more than one minute during next check; lamp will overheat and lamp life will be shortened.				
ALL	Exterior lighting (landing, position, and anti-collision lights) for correct operation. Set all switches to OFF after the check.	96-40-00		
WARNING: Do not leave pitot heater ON for more than one minute during next check – there be severe burns to personnel.				
ALL	Turn PITOT HTR Switch ON for a few seconds. Heated pitot tube will feel warm to the touch. Turn switch to OFF after check.	95		
600N	Apply power to the helicopter and disconnect the CIT sensor. (Ref. 76-47-00, Maintenance Practices, 6.A.(1).) * Make sure the ECU FAIL light illuminates. * Connect the CIT sensor. (Ref. 76-47-00, Maintenance Practices, 6.B.(2).)	76-00-00		
ALL	Clean the battery and do an inspection for: * Connector pins for corrosion. * Leakage (if battery has leaks or is wet, remove and replace battery). * Battery case for cracks in the support flanges. * DC wiring for chafes caused by wiring rubs against the battery case. * Deep cycle charge (recondition) battery every 100 hours or on a conditional basis at operator discretion.	96		
ALL	Do a functional check and examine all installed avionics, auxiliary or optional systems and equipment. Do not actuate the hoist guillotine or the emergency floats.	97		
ENGINE COMPARTMENT				
ALL	Do the Fuel System Vacuum Leak Inspection (ref. 28-00-00 or 28-00-30 or 28-00-60, Inspection and Check, 6. or 5. or 5., respectively) and the fuel air bleed procedures (ref. the applicable Rolls-Royce Operation and Maintenance Manual for special engine fuel system air bleed information) after the fuel supply system has been opened.	28-00-00 28-00-30 28-00-60		

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____	Serial No. _____	Helicopter Hours _____	TEs _____
Model	Requirement	Chapter-Section	Initials
ALL	Examine the engine for: * Loose bolts and loose or broken connections. * Accessories for installation and broken or missing lockwire. * Fuel and oil lines for chafes and kinks. * Fuel drain line valve for leakage. * Oil cooler and cooler deflector for installation and obvious damage. * Accessible areas for obvious damage; evidence of fuel and oil leaks. * Engine mounts for cracks and play in mounting hardware at engine and airframe (torque loose mounting bolts). * Fuel control and compressor exterior for condition and installation.	71 75 76	
369D/E/FF 500N	Clean and lubricate drive splines of starter-generator drive shaft, and female splines in engine accessory gearcase on dry spline installations.	71-00-00	
369D/E/FF 500N	* Examine the anti-ice air tubes and compressor scroll for cracks or breaks at the anti-ice air valve and bleed port. (Ref. 75-10-00, Maintenance Practices, 5. or 6.) * If there are cracks or breaks, do an Anti-Icing System Test. (Ref. 75-10-00, Maintenance Practices, 7. or 8.; and the applicable Rolls-Royce Operation and Maintenance Manual)	75-10-00	
369D/E/FF 500N	RPM governor lever control rod (replace if aluminum).	76-10-00	
ALL	* Examine the exhaust stack(s) and supports for cracks, defects, and incorrect installation. (Ref. 78-20-00, Maintenance Practices, 3.A., B., and C.; and 78-30-00, Maintenance Practices, 3.) * Examine the hanger saddle cushion assembly for wear, tear, and installation. (Ref. 78-20-00, Maintenance Practices, 4.B.)	78-20-00 78-30-00	
ALL	* Examine the engine compartment plumbing and electrical relay installation on left- or right-side oleo (landing gear damper) support fitting for good condition and installation of mounts. * Examine the diodes for broken terminals and wires. * Examine the diode bracket for installation and corrosion.	96	
POST-INSPECTION			
ALL	Make sure all fluid levels are correct – service as necessary.	12	
ALL	Touch-up all damaged paint and exterior markings as necessary.	20	
ALL	* Install or close all stressed panels, covers, and trim panels removed or opened for inspection. * Do a check of the closure, fit, and installation. * Make sure all loose equipment is correctly stowed.	52-50-00	
ALL	Do the Scavenge Air Operational Check to do a check of the particle separator filter. (Ref. 71-10-10, Maintenance Practices, 4. or 5.)	71-10-10	

Table 1. 100-Hour or Annual Inspection (Cont)

Registration No. _____		Serial No. _____		Helicopter Hours _____		TEs _____	
Model	Requirement					Chapter-Section	Initials
CAUTION: Do not fly the helicopter unless the controls access panel and fuel cell access panels (which are both stressed panels) in cargo compartment are correctly installed.							
POST-INSPECTION RUN UP See the applicable Pilot's Flight Manual for the cockpit check and engine start procedures. For troubleshooting procedures, ref. the applicable section of this manual.							
100-HOUR OR ANNUAL INSPECTION CERTIFICATION It is certified that this helicopter has been thoroughly inspected as required by FAR, found to be airworthy, and appropriate entries made in the helicopter logbook. It is further certified that the helicopter conforms to FAA specifications, that all FAA Airworthiness Directives and Manufacturer Service Notices and Maintenance Manual data have been complied with, and the helicopter records are in correct order.							

Signature _____

Rating Type or Certificate No. _____

Date _____

2-25-24

Ref. 04-00-00, Airworthiness Limitations, 4., 5. and 6. for components with calculations of RINs/TEs and information for the calculation of RINs/TEs.

A component must be scrapped when it reaches 1,000,000 RINs or the maximum TEs. (Ref. 04-00-00, Airworthiness Limitations, Table 1)

Table 2. Permanent Record of Retirement Index Numbers/Torque Events

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M250-C20 SERIES OPERATION AND MAINTENANCE

C. Alternate Inspection Schedule

Based on current engine configuration and the use of modern oils, operators may use this alternate inspection schedule. Prerequisites for this include:

- (1) The use of a wet spline starter/generator drive shaft (new production or those replaced in accordance with the Rolls-Royce Commercial Engine Bulletin M250-C20 CEB-1082).
- (2) The use of High Thermal Stability (third generation) oils. Reference PARA 4.C., 72-00-00, Engine-Description and Operation, for oil specifications and mixing cautions.
- (3) The engine must have an external oil filter installed that has a valid STC (Supplemental Type Certificate).

Table 603 Alternate Scheduled Inspections				
Inspection Checksheet				
Owner <u>SUS</u>		Date <u>2-18-24</u>		
A/C Make/Model <u>500D</u>		S/N <u>7007367</u>	Reg No. <u>6254</u>	TSN <u>71046.4</u>
Engine S/N <u>CAE 837088</u>		TSN <u>71046.4</u>	TSO <u>531.5</u>	
This inspection checksheet is to be used when performing scheduled inspections. This form can be locally reproduced and/or expanded to reflect the aircraft operating environment. Keep the completed sheets as a permanent part of the aircraft engine records. Detailed information regarding each inspection item is contained in the referenced Operation and Maintenance Manual paragraphs. CAUTION: BEFORE UNDERTAKING ANY INSPECTION OR MAINTENANCE ACTION, CONSULT THE REFERENCED PARAGRAPHS OF THE OPERATION AND MAINTENANCE MANUAL. FAILURE TO FOLLOW THE RECOMMENDED INSTRUCTIONS IN THE MANUAL COULD RESULT IN EQUIPMENT DAMAGE OR DESTRUCTION, POSSIBLY RESULTING IN PERSONNEL DEATH OR INJURY. NOTE: THIS INSPECTION CHECKLIST CAN ONLY BE USED IF THE OPERATOR IS USING AN APPROVED THIRD GENERATION (HTS) OIL AND AN APPROVED AIRFRAME MOUNTED SCAVENGE OIL FILTER. NOTE: COMPLIANCE TO THE 150 HOUR AND 300 HOUR ITEMS IN THIS TABLE MUST BE PERFORMED AT LEAST EVERY 12 CALENDAR MONTHS OR BY HOURS, WHICHEVER OCCURS FIRST.				
Item	Inspection/Maintenance Action	REF PARA	✓	Initial
	<u>150 Hour Inspection</u>			
1	Remove, examine, and clean the fuel nozzle. If no airframe mounted fuel filter is installed, examine the fuel nozzle filter.	73-10-03		
	NOTE: Operators may find it necessary to inspect and clean the fuel nozzle more often depending on past experience or operating conditions.			
2	Inspect for discharge air tube inserts that are cocked or backing out of the scroll. If cocked or loose inserts are detected, check the engine for possible vibration causes. Check the air tubes for cracks.	PARA 1.D.(2), this section		
3	Visually check the compressor discharge air tubes for damage or deterioration.	PARA 4.A., 72-40-00		

72-00-00

Table 603
Alternate Scheduled Inspections

Item	Inspection/Maintenance Action	REF PARA	✓	Initial
	<u>150 Hour Inspection (cont)</u>			
4	On engines with CECO fuel system, clean or replace the high-pressure fuel filter.	PARA 2., 73-10-05		N/A
5	If optional CEB 1165, (removal of gearbox spare accessory drive gear), has been accomplished without removal of bearing cage, then inspect bearing cage retention for looseness.	CEB 1165 Revision 5 (or later revision) Paragraph 2. B. (2)		
	<u>300 Hour Inspection</u>			
	In addition to the 150 hour inspection items, perform the following:			
1	Clean the compressor with the chemical wash solution as required if operating in a smoggy area, conditions with airborne pollutants, or with water alcohol.	PARA 6., 72-30-00		
2	Inspect the entire engine for loose or missing bolts, broken or loose connections, security of mounting accessory, and broken or missing lockwire. Check accessible areas for obvious damage and evidence of fuel or oil leakage.	N/A		
3	Inspect all B-nuts for application and alignment of torque paint. If missing, loosen the B-nut, retighten, and apply torque paint.	PARA 9.B., 72-00-00, Engine-Servicing		
4	Check the mounting and support bolts to be sure they are tight, lockwired, and in good condition. Check the security of screws and rivets. Remove all foreign material which might be drawn into the compressor inlet.	N/A		
5	Check accessible fuel system components, lines, and connections for security, damage, or leakage. Accomplish with the boost pump on, if available. Remove, visually inspect, and clean if visual condition dictates.	PARA 2., 73-00-00		
6	Inspect the P _c filter for proper clamping.	N/A		
7	Until CEB-A-1233 is complied with, inspect the P _c filter assembly as follows: Without disassembly or removal of the P _c filter assembly from the mounting bracket, inspect using a 10X magnification glass and a bright light to detect any signs of cracks, paying particular attention to both of the end fittings at their junction with the end walls. If cracks are detected, remove the assembly and comply with CEB-A-1233.	N/A		
8	Remove the Scroll-to-P _c Filter Tube Assembly at both ends and inspect for cracks using a 10X power glass. Pay particular attention to the flared ends of the tube for cracks, and to the areas beneath the floating ferrules for fretting damage. Tubes found to contain cracks and/or excessive fretting damage are to be replaced by new parts of the same part number as removed.	N/A		

72-00-00

1. Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: SDK813009062023-10	
4. Organization Name and Address: Donaldson Company, Inc. 17891 Chesterfield Airport Rd. Chesterfield, MO 63005 (PQ3832CE)					5. Work Order/Contract/Invoice Number: A142005	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	Filter Assembly - Upper, MD500	102400-101	4	1373 to 1376	New	
2	Filter Assembly - FWD, MD500	102450-101	4	1325 to 1328	New	
12. Remarks: Domestic Airworthiness Approval: Item 1. Filter Assembly - Upper, MD500 (Part Number: 102400-101) is a sub-component of a PMA article. Item 2. Filter Assembly - FWD, MD500 (Part Number: 102450-101) is a sub-component of a PMA article. Produced by the STC Production Approval Holder. This FAA-PMA article is not a critical component.						
13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.			14a. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work the items are approved for return to service.			
13b. Authorized Signature: 		13c. Approval/Authorization No.: 		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed): Steve King		13e. Date (dd/mm/yyyy): 06-Sep-2023		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):
User/Installer Responsibilities						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						