

4. Retirement Index Number (RIN)

- (1). A Retirement Index Number (RIN) is a number that accounts for different usage spectra in assigning the retirement time for a component.

The RIN is calculated as the sum of an adjustment factor times flight hours plus another adjustment factor times Torque Events.

When a component reaches 1,000,000 RIN's, it has reached it's maximum life and is to be scrapped.

5. Torque Event (TE)

A Torque Event (TE) is defined as:

The transition to a hover from forward flight.

Any external lift operation.

NOTE: An external lift can either be on the cargo hook, external hoist or in external baskets.

For external lift operators, an external load is recorded as two (2) TE's (pick-up and drop-off).

Hover taxi with no external load will typically result in no TE's.

6. External Lift and Torque Event (TE) Requirements

The 369D/E/F/FF - 500/600N helicopters are multi-use helicopters. If the helicopter is used primarily for external lifts or training flights (high TE flights), there may be a reduction in inspection intervals of some components.



For safe operation of the helicopter, TE's must be recorded in the Rotorcraft Log Book. Each external lift will be recorded as two (2) TE's.

- (1). Determine the number of TE's and external lifts the helicopter accumulates per hour of flight time.
- (2). Record all TE's in Rotorcraft Log Book and continue to record all TE's.
- (3). Perform required TE inspections.

Table 1. Airworthiness Limitations Schedule

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Main Rotor System				
Blade assembly, main rotor	369D/E (5)(6)	369D21100	3530 (37)	25 (11)(20)
		369D21100-516	3530 (37)	100 (20)
		369D21100-517	2500 (31)	25 (22)
		369D21100-517	3530 (37)	100 (20)
		369D21100-523	4000 (37)	100 (20)
		369D21120-501	3530 (37)	100 (20)
		369D21120-503	3530 (37)	100 (20)
		369D21120-505	3530 (37)	100 (20)
	369F/FF (6)	369D21102	3430 (37)	25 (11)(20)
		369D21102-503	3430 (37)	100 (20)
		369D21102-517	2500 (31)	25 (22)
		369D21102-517	3430 (37)	100 (20)
		369D21102-523	4000 (37)	100 (20)
		369D21121-501	3430 (37)	100 (20)
		369D21121-503	3430 (37)	100 (20)
		369D21121-505	3430 (37)	100 (20)

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Blade assembly, main rotor	500N (6)	369D21102-503	3430 (37)	100 (20)
		369D21102-517	2500 (31)	25 (22)
		369D21102-517	3430 (37)	100 (20)
		369D21102-523	4000 (37)	100 (20)
		369D21121-501	3430 (37)	100 (20)
		369D21121-503	3430 (37)	100 (20)
		369D21121-505	3430 (37)	100 (20)
	600N (6)	369D21102-517 (21)	1900 (32)(37)	100 (20)
		369D21102-523	3200 (33)(37)	100 (20)
		369D21121-501	3200 (33)(37)	100 (20)
		369D21121-503	3200 (33)(37)	100 (20)
		369D21121-505	3200 (33)(37)	100 (20)
Folding pin, main rotor blade attach	369D/E/F/FF	369A1004	2850	
		369A1004-3	2850	
		369A1004-5	7600	
	500/600N	369A1004-5	7600	
Hub subassembly, main rotor	369D/E/F/FF 500N	369D21201	8900	
Pitch housing assembly, main rotor hub	369D	369D21300	9100	
		369D21300-501	9100	
	369E/F/FF 500N	369D21300-501	9100	
Retention strap assembly, main rotor hub	369D	369D21210	2770	100 (4)
		369D21210-501	2770	100 (4)
	369E/F/FF	369D21210-501	2770	100 (4)
	500/600N	369D21210-501	2770	100 (4)
Bolt, lead-lag hub, main rotor	369D	369A1220	6120	
	369D/E/F/FF 500N	369D21220-BSC	6120	
		369D21220-1	6120	
	600N	369D21220-BSC	5400 (34)	
		369D21220-1	5400 (34)	

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Link assembly – lead lag hub, main rotor	369D/E	369H1203-BSC (39)	5762	25 (23)
		369H1203-21 (39)	5762	25 (23)
		369H1203-31 (39)	5762	25 (11)
		369H1203-51 (39)	11080	
		369H1203-53 (40)	11080	
		369H1203-61 (39)	11080	
	369F/FF	369H1203-21 (39)	5762	25 (23)
		369H1203-31 (39)	5762	25 (11)
		369H1203-51 (39)	11080	
		369H1203-53 (40)	11080	
		369H1203-61 (39)	11080	
	500N	369H1203-51 (39)	11080	
		369H1203-53 (40)	11080	
		369H1203-61 (39)	11080	
	600N	369H1203-51 (39)	11080	
		369H1203-53 (40)	11080	
Lead lag damper – main rotor	369D	369D21400-501 M50452	6060 On Cond.	(16)
	369D/E/F/FF 500/600N	369D21400-503	On Cond.	(16)
Drive shaft, main rotor	369D/E	369D25510	5020	300 (8)
	369F/FF	369D25510	3410	300 (8)
	500N	369D25510-21	3260	300 (15)
	369D/E	369F5510	(42)	
	369F/FF	369F5510	(42)	
	500N	369F5510	(42)	
	600N	600N5510	14000 (35)	
Mast assembly, main rotor	369D/E/F/FF 500N	369D22014	10450	
	600N	369D22014	3500	

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Drive Shafts, Couplings and Clutches				
Drive shaft, main rotor transmission	369D/E/F	369A5510	3790	
Coupling, main transmission drive shaft	369D/E/F/FF	369H5660	4300	
	500N	369H5660	3200	
Overrunning clutch assembly	369D/E/F/FF 500/600N	369F5450–501	On Cond.	100 (24)
Sprag assembly, overrunning clutch	369D/E/F/FF	369A5364 369D25351	(3)	300 (10)
	500N	369D25351	(3)	300 (10)
	369D/E/F/FF 500/600N	369F5456	(3)	300 (17)
Drive shaft, fan	500N	500N5200	2620	
	600N	500N5200	1200 (36)	
Drive shaft, tail rotor	369D/E	369D25518	13900	
	369F/FF	369DSK152–11 369D25518–503	13900 14610	
Coupling – tail rotor drive shaft (Bendix) (NOTE: Not certified on 369FF Model) (9)	369D/E/F	369A5501	4980	
		369H92564 (7)	4980	
Anti-Torque System				
Gearshaft assembly, tail rotor input	369D/E	369D25434	12000	
		369D25434–3	12000	
Gearshaft assembly, tail rotor input	369F/FF	369D25434	3365	
		369D25434–3	3365	
Gearshaft, tail rotor output pinion	369D/E/F/FF	369D25430	7290	
		369D25430–5	7290	
Blade assembly, tail rotor	369D/E	369D21613	5200	
		369D21613–11	5140	
		369D21613–31	5140	
		369D21613–41	5140	
		369D21613–51	5140	
		369D21613–61	5140	
		369D21613–71	5140	
		369D21640–501 (38)	400 (46)	
		369D21640–503 (38)	400 (46)	
		369D21640–505 (38)	5140	
		369D21640–507 (38)	5140	
	369F/FF	369D21606	5140	
		369D21642–501 (38)	400 (46)	
		369D21642–503 (38)	400 (46)	
		369D21642–505 (38)	5140	
		369D21642–507 (38)	5140	

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Blade assembly, tail rotor (optional 4-blade)	369D/E	369D21615	10000	
		369D21641-501 (38)	400 (46)	
		369D21641-503 (38)	400 (46)	
		369D21641-505 (38)	10000	
		369D21641-507 (38)	10000	
Hub, tail rotor	369D/E/F/FF	369A1725	3450	
Retention strap assembly, tail rotor	369D/E/F	369A1706	5100	
	369FF	369A1706-507	5100	
		369A1706-509	5100	
Blade assembly, NOTAR® fan	500N	500N5310-15	7500	
		500N5310-19	7500	
		500N5310-23	7500	
Blade assembly, NOTAR® fan	600N	500N5310-19	12500	
		500N5310-23	12500	
Hub, fan	500N	500N5352-7	7500	
		500N5352-9	7500	
	600N	500N5352-9	7500	
Tension-Torsion Strap, NOTAR®	500N	500N5311-5	(43)(44)	
	600N			
Shaft, NOTAR® fan support	600N	500N5357-13	4000	
Pitch plate assembly	500/600N	500N5363-7	7500	
Tube assembly, fan pitch	500N	500N7113-3	600 (18)	
Rotating cone assembly	500N	500N3740-1	10000	
		500N3740-41	10000	
		500N3740-81	10000	
	600N	500N3740-61	10000	
		500N3740-71	10000	
Tailboom				
Bolts, tailboom attach	369D/E/F/FF	MS21250-06014	21950	
Tailboom assembly	369D/E	369D23500	10300	
	369F/FF	369D23500-507	10300	
		369D23500-513	10300	

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Tailboom assembly	500N	500N3500-19	10204	100 (14)
		500N3500-29	10204	
		500N3500-501	10204	
		500N3600-501	10204	100 (14)
	600N	600N3500-503	2500 (25)	
		600N3500-505	5900	
		600N3500-507	1000	
		600N3500-509	6000 (19)	
		600N3500-511	6000 (19)	
		600N3500-513	2500 (25)	
		600N3500-515	5900	
		600N3500-517	1000	
Empennage fittings	600N	500N3530-7/8	On Cond.	100 (26)
		500N3530-9/10	On Cond.	100 (26)
Vertical stabilizer assembly	369D/E	369D23600	12700	
	369F/FF	369D23600-505	3388	
Torque tube, horizontal stabilizer	500N	500N3950-5	5000	
	600N	500N3950-7	3000 (45)	
		500N3950-9	3000 (45)	
		600N3950-1	400	
		600N3950-3	1000	
Horizontal stabilizer assembly	369D (12)	369D23601	7700	
	369E (12)	421-087-505	7700	
		421-087-905 (13)	7700	
	369F/FF (12)	421-087-503	7700	
		421-087-903 (13)	7700	
	600N	500N3910-25	10000 (19)	
		500N3910-27	10000 (19)	
Controls				
Longitudinal idler bellcrank assembly	369D/E/F/FF	369A7301-501	6500	
	500N	369A7301-501	2870	
Idler assembly, longitudinal pitch mixer	369D/E/F/FF	369A7603	13600	
	500N	369A7603	6050	
Longitudinal control rod	500N	369A7011-13	7740	
		369A7011-15	7740	
Socket, cyclic stick	600N	369A7141	1000	8 (27)
Cyclic tube assembly	600N	369D27132-503	1200	8 (27)
Housing, collective stick	600N	369A7347	450	
Tube, collective pitch control	600N	369A7348	400	
Tube assembly, collective pitch (pilot)	600N	369H7354-3	600	
Socket, cyclic stick	600N	369A7802	1000	8 (27)

Table 1. Airworthiness Limitations Schedule (Cont)

Component (1)	Model	Part Number (2)	Finite Life Hours (1)	Mandatory Inspection Hours
Tube, collective pitch (co-pilot)	600N	369A7809	1800	
Housing, collective stick	600N	369A7820	450	
Housing, collective stick	600N	369H7837	450	
Tube assembly, collective pitch (co-pilot)	600N	369H7838-3	1000	
Fuselage Sta. 75 controls support bracket	600N	369N2608-11 600N2608-9	6000 (41) Unlimited	
Link assembly, collective / longitudinal	600N	600N7617-1 600N7617-5	Deleted (47) Unlimited	
Airframe				
Landing gear brace	600N	600N6010-17/19	5900 (28)	
Landing gear strut	600N	600N6022-7 600N6022-8 600N6022-9 600N6022-10 600N6022-11 600N6022-12 600N6022-13 600N6022-14	696 (29) 696 (29) 696 (29) 696 (29) 696 (29) 696 (29) 696 (29) 696 (29)	
Landing gear foot	600N	600N6043-3	3900 (30)	
Floats				
Squib cartridge, used on Emergency float kit 369D292473-5, -6, -9, -10, -11, -12 NOTE: Life is based from original date of manufacture.	369D/E/F/FF 500N	12552-1 (Holex, Inc.) 281993 (Walter Kidde) 12754-1 (Holex, Inc.) 5003527 (Tavco)	5 years 5 years 5 years 5 years	
Stabilizer support, utility float	369D/E	369D292036 369DSK66	3190 3190	

NOTES:

- (1) Life-limited components interchanged between models or configurations must be restricted to the lowest service life indicated for the models or configurations affected. Life-limited components removed at retirement are to be mutilated/destroyed or conspicuously marked to prevent inadvertent return to service. Parts are applicable only on models under which a service life is listed. Life-limited components cannot be altered or permanently marked in any manner without compromising the part integrity. Part tagging or other record keeping system is required. Related component records must be updated each time component is removed from service.
- (2) Service life shown for the basic (no dash number) part numbers apply to all dash numbered versions unless otherwise indicated.

- (3) With no cargo hook attached: – No retirement life assigned (Ref. Sec. 05–10–00, Component Overhaul or Recommended Replacement Schedule).
With cargo hook attached and no separate log: – 1800 hours.
With cargo hook attached and with separate log: – 1800 hours of external load operating time when logged separately.
(For 369D/E/F/FF helicopters with 369A5364 or 369D25351 sprag assembly, Refer to AD 90–19–02.)
- (4) Inspect in accordance with Main Rotor Strap Pack Lamination Inspection at 100-hour intervals, or 25-hour intervals if 2 laminates (369D/E/F/FF – 500N) or 1 laminate (600N) have failed in any one leg or tongue area of any strap assembly. A single cracked laminate between the shoes at the outboard end of a strap pack is cause for rejection of the hub assembly
369D/E/F/FF – 500N: (Ref. Sec. 62–20–00, Main Rotor Strap Pack Lamination Inspection).
600N: (Ref. Sec. 62–20–60, Main Rotor Strap Pack Lamination Inspection).
(For 369D/E/F/FF helicopters, refer to AD 89–02–01.)
- (5) The 369D21100–513, –515, 516, 517 and –523 main rotor blades are not interchangeable with any earlier configuration blades (Basic, –505 or –509); however, the –505 and –509 blades are interchangeable and the –513 and –515 blades are interchangeable. The –505 and –509 configuration blades may be modified to the –513M configuration, which is fully compatible with the –513 blade. (For information concerning modification, contact Customer Service Department.)
- (6) For the 369D/E helicopters, the 369D21120–501, –503 main rotor blade has all the same inspections and interchangeability as the 369D21100–517 main rotor blade.
For the 369F/FF – 500N helicopters, the 369D21121–501, –503 main rotor blade has all the same inspections and interchangeability as the 369D21102–517 main rotor blade.
For the 600N helicopters, the 369D21121–501, –503 main rotor blade has all the same inspections and interchangeability as the 369D21102–523 main rotor blade.
- (7) Used with 369H90123 Rotor Brake Kit.
- (8) Inspect main rotor drive shaft every 300 hours (Ref. Sec. 63–10–00, Main Rotor Drive Shaft Inspection (300 Hour)) (Reference AD 81–26–01 R1).
- (9) Failsafe device, P/N 369D25530 bolt and 369D25531 socket, must be used at both ends of tail rotor driveshaft in accordance with Tail Rotor Drive Shaft Installation with Bendix Couplings (Reference AD 86–20–07).
- (10) For helicopters equipped with a cargo hook, inspect overrunning clutch sprag assembly P/N 369D25351, clutch inner race P/N 369A5353 and outer race 369A5352 every 300 hours (Ref. C.O.M., Sec. 63–10–10, Overrunning Clutch Sprag Inspection (300 Hour)). To establish time in service, either clutch total time with hook attached or a separate and permanent log of external load operating time per CFR 91.417, may be used.
(For 369D/E/F/FF helicopters with 369A5364 or 369D25351 sprag assembly, Refer to AD 90–19–02.)
- (11) Inspect main rotor blade root fittings and main rotor lead–lag link assemblies every 25 hours in accordance with Main Rotor Blade Upper and Lower Root Fitting Attach Lug and Lead–Lag Link Attach Lug Inspection (25 Hour) and every 100 hours in accordance with Main Rotor Blade Upper and Lower Root, Fitting Attach Lug and Lead–Lag Link Attach Lug Inspection (100 Hour) (Ref. Sec. 62–10–00) (Reference AD 95–03–13).
- (12) Tip plates, tip weights (where applicable) and attaching hardware have no retirement life and may be reused on replacement horizontal stabilizers.
- (13) 421–087–903 and –905 require the addition of tip plates, tip weights (where applicable), and attaching hardware before installation.
- (14) Inspect the three upper slot bridges for cracks (Ref. Sec. 05–20–00).
- (15) Inspect main rotor drive shaft every 300 hours (Ref. Sec. 63–10–00, Main Rotor Drive Shaft Inspection (300 Hour)).
- (16) Inspect for deterioration every 600 hours up to a total time of 4200 hours and every 300 hours thereafter until deterioration is sufficient to retire assembly
369D/E/FF – 500N: (Ref. Sec. 62–20–00, Main Rotor Damper and Attachments Inspection)
600N: (Ref. Sec. 62–20–60, Main Rotor Damper and Attachments Inspection).

- (17) For helicopters equipped with a cargo hook, inspect overrunning clutch sprag assembly P/N 369F5456, clutch inner race P/N 369F5455 and outer race 369F5453 every 300 hours. To establish time in service, either clutch total time with hook attached or a separate and permanent log of external load operating time may be used.
- (18) 500N7113-11 tube assembly, fan pitch is an On-Condition part and replaces the 500N7113-3 tube assembly.
- (19) Interim hours: life extension testing in progress.
- (20) Inspect upper and lower blade root fittings every 100 hours in accordance with Main Rotor Blade Upper and Lower Root, Fitting Attach Lug and Lead-Lag Link Attach Lug Inspection (100 Hour) (Ref. Sec. 62-10-00)
(For 369D/E/F/FF — 500N helicopters, Reference AD 96-10-09).
- (21) Main rotor blades, P/N 369D21102-517 with S/N 1976 thru 2100, 2106 thru 2115 are not to be installed on 600N helicopter (Reference Service Bulletin SB600N-007R2) (Reference AD 98-15-26).
- (22) Inspect main rotor blades with 600 or more hours of operation every 25 hours of helicopter operation with a 10X magnifying glass for cracking of the lower surface of the blade emanating from the root fitting and doubler at the inboard end of the blade and to detect debonding between the blade root end fitting and doubler if missing or cracked adhesive or paint is observed. (Reference Service Bulletins SB369D-195R3, SB369E-088R3, SB369F-075R3, SB500N-015R3) (Reference AD 98-15-26).
- (23) Perform Main Rotor Blade Upper and Lower Root, Fitting Attach Lug and Lead-Lag Link Attach Lug Inspection (25 Hour) up to a total time of 500 hours and every 15 hours thereafter and every 100 hours in accordance with Main Rotor Blade Upper and Lower Root Fitting, Attach Lug and Lead-Lag Link Attach Lug Inspection (100 Hour) (Ref. Sec. 62-10-00) until retirement of 369H1203-BSC and -21 Lead-Lag Link Assembly. (Reference AD 95-03-13).
- (24) Inspect clutch retainer and bearing carrier for evidence of spinning and/or wear (Ref. Sec. 05-20-20).
- (25) The 600N3500-503 tailboom may be reworked to a 600N3500-505 tailboom, and the 600N3500-513 tailboom may be reworked to a 600N3500-515 tailboom by modifying the attachment fittings to all-steel fittings.
- (26) (Ref. Sec. 05-20-00) Using a flashlight and 10X magnifying glass, inspect horizontal stabilizer mounting brackets for cracks (pay particular attention to the forward inboard legs) (Ref. Tailboom Inspection).
- (27) Sockets must be inspected for cracks every eight hours after the initial 100 hour inspection.
- (28) Log all landings: Brace life is limited to 35400 logged landings or 5900 hours flight time if landing are not logged (assumed six landings per one hour of flight time).
- (29) Log all landings: Strut life is limited to 4170 logged landings or 696 hours flight time if landing are not logged (assumed six landings per one hour of flight time).
- (30) Log all landings: Foot life is limited to 23780 logged landings or 3900 hours flight time if landing are not logged (assumed six landings per one hour of flight time).
- (31) The following main rotor blades have a finite life of 2,500 hours or 15,000 torque events*, whichever occurs first;
P/N 369D21100-517 with S/N H664, H665, H667, H669, H671, H672, H674, H676, H679, H680, H683 thru H724, H726 thru H999 and J000 thru J039, J041 thru J055 and
P/N 369D21102-517 with S/N 1976 thru 2100, 2106 thru 2115.
* TORQUE EVENT (TE) — A TE is recorded for every transition from forward flight to a hover (Reference Service Bulletins SB369D-195R3, SB369E-088R3, SB369F-075R3, SB500N-015R3). (Reference AD 95-03-13).
- (32) $RIN = (200 \times Hrs.) + (52 \times TE)$.
- (33) $RIN = (160 \times Hrs.) + (24 \times TE)$.
- (34) $RIN = (153 \times Hrs.) + (3 \times TE)$.
- (35) $RIN = (50 \times Hrs.) + (3 \times TE)$.
- (36) $RIN = (768 \times Hrs.) + (11 \times TE)$.

- (37) After accumulation of 750 flight hours and 13,720 TE, perform Main Rotor Blade Torque Event Inspection (Ref. Sec. 62-10-00) every 35 flight hours or 200 TE's (whichever occurs first).
- (38) The 369D21640-501, -503, -505, -507 tail rotor blades are two-way interchangeable with the 369D21613 tail rotor blades in sets of two only.
The 369D21641-501, -503, -505, -507 tail rotor blades are two-way interchangeable with the 369D21615 tail rotor blades in sets of two only (installed on the same inboard or outboard hub).
The 369D21642-501, -503, -505, -507 tail rotor blades are two-way interchangeable with the 369D21606 tail rotor blades in sets of two only.
- (39) The 369H1203-BSC, -11, -21, -31, -51 and -61 lead lag link assemblies can only be installed using the 369H1235-BSC bearing.
- (40) The 369H1203-53 lead lag link assembly can only be installed using the 369H1235-1 bearing.
- (41) The 369N2608-11 Control Support Bracket must be removed from 600N helicopters equipped with YSAS (Ref. SB600N-040).
- (42) $RIN = (29 \times \text{Hrs.}) + (1 \times \text{TE})$.
- (43) The tension-torsion straps have a 5-year calendar life that starts the day the package is opened (Ref. Sect 64-25-30). If the date the package was opened is unknown, the 5-year calendar life is based on the manufacturing cure date.
For straps installed before 06 March 2008 on Model 500N helicopters serial numbers LN-001 thru LN-105 and Model 600N helicopters serial numbers RN003 thru RN074, the initial calendar replacement is based on the cure date on the strap. Refer to Table 2 to find the expiration date.
- (44) 500N5311-5 straps previously installed on MD900 helicopters are life limited to 2,500 hours when installed on 500N and 600N series helicopters.
- (45) Use only on 600N helicopters without a yaw stability augmentation system (YSAS) (Pre-TB600N-006R1).
- (46) Life-limited hours changed from 4500 to 400 (Reference AD 2013-19-24).
- (47) The aluminum 600N7617-1 link assembly is removed from service and replaced by the steel 600N7617-5 link assembly in all 600N configurations (ref. SB600N-070).

Table 2. Tension-Torsion Strap Expiration Date

Manufacturers Cure Date	Expiration Date
Before 03/1999	09/2008
03/1999 thru 02/2001	03/2009
03/2001 thru 02/2005	03/2010
03/2005 thru 02/2008	Cure Date Plus 5 Years

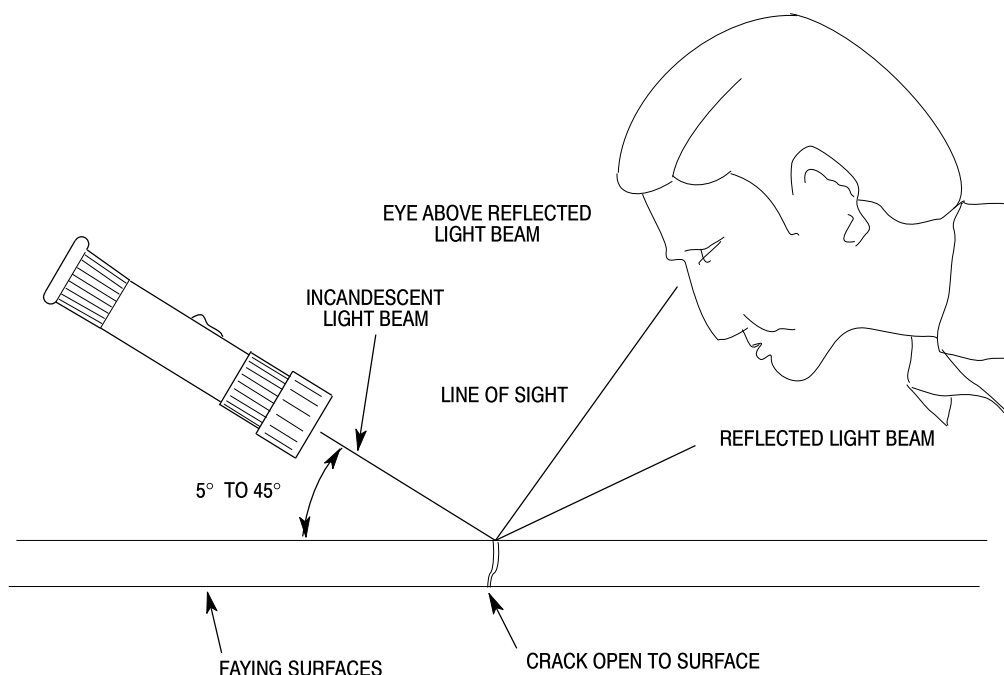
NONDESTRUCTIVE INSPECTION MAINTENANCE PRACTICES

1. Nondestructive Inspection Methods

A. Visual Inspection

(Ref. Figure 201)

- (1). Select applicable visual inspection aids from the following list:
 - (a). A flashlight with the correct explosive atmosphere rating, beam spread, efficiency, and brightness for the inspection being done..
 - (b). An inspection mirror on a ball joint for use in viewing an area that is not in the normal line of sight.
 - (c). A 2-10 power magnifying glass to expose defects that cannot be seen by the unaided eye.
 - (d). A borescope to allow remote visual inspection of internal surfaces or otherwise inaccessible areas.
- (2). Do a preliminary inspection of overall general area for cleanliness, presence of foreign objects, deformed or missing fasteners, security of parts, corrosion, and damage.
- (3). Treat any corrosion found during preliminary inspection.
- (4). Clean the areas or surface of parts to be inspected.
 - (a). Remove any contaminants that might hinder surface indications.
 - (b). Do not remove protective finishes.
- (5). Using optical aids as required, inspect area as follows:
 - (a). Examine surface for cracks using a flashlight, and confirm with a magnifying glass.
 - (b). Examine surface for other discontinuities, such as: discoloration from overheating; buckled, bulging, dented skin; cracked, chafed, split, or dented tubing; chafed electrical wiring; delaminating of composites; and damaged protective finishes.



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Figure 201. Visual Inspection Technique

- (3). Do a check of each void before each flight for growth and acceptable criteria.

9. Torque Event Inspection

(Ref. Figure 605)

CAUTION A crack can be difficult to find if a bright light is not used.

NOTE: It is recommended to only paint the inboard **24 inch (60.96 cm)** gloss white to help with crack detection. All blades must be painted the same. (Ref. Section 20-30-00)

- (1). Lift the blade off the droop stop from the outboard end of the blade.
- (2). Examine the bottom side of the blade:

NOTE: The bottom side of the blade is more susceptible to cracks.

- (a). Examine with a bright light and 10X magnification glass for chordwise cracks that extend from under the root fitting, doubler, and skin. (Ref. View C and Note 6 and Note 7).
- (b). Examine the lower root fitting for missing or cracked adhesive/paint around the periphery of the root fitting. (Figure 605, Note 5)
- (c). If adhesive or paint is missing from the lower root fitting, do this inspection:
 - 1). Main Rotor Blade Upper and Lower Root Fitting, Attach Lug and Lead-Lag Link Attach Lug Inspection (100 Hour) (Ref. Procedure 7.)

- (d). Examine the attach lugs at the bushings for cracks.
- (e). Examine the full length of the blade bottom for cracks.
- (f). Lower blade back onto droop stop.
- (g). If there is a crack, reject and discard the main rotor blade.

- (3). Put the blade on the droop stop and examine the top side of the blade:

- (a). Examine with a bright light and 10X magnification glass for chordwise cracks that extend from under the root fitting, doubler, and skin. (Ref. Figure 605, Note 8)
- (b). Examine the upper root fitting for missing or cracked adhesive/paint around the periphery of the root fitting. (Ref. Figure 605, Note 5)
- (c). If adhesive or paint is missing from the upper root fitting, do this inspection:
 - 1). Main Rotor Blade Upper and Lower Root Fitting, Attach Lug and Lead-Lag Link Attach Lug Inspection (100 Hour) (Ref. Procedure 7.)
- (d). Examine the lugs at the bushings for cracks.
- (e). Examine the full length of the blade top for cracks.
- (f). If there is a crack, reject and discard the main rotor blade.