

SAFARI HELICOPTER ANNUAL CONDITION INSPECTION

Reg # N211CJ

Hours

294.9

Remove any temporary covers and in cold weather remove even small accumulations of frost, ice or snow. Check maintenance records to be sure aircraft is airworthy. During the following inspection, check the general condition of the aircraft and also look for any evidence of leakage, dis-coloration due to heat, dents, chafing, galling, nicks, corrosion and especially for cracks. Also check for fretting at seams where parts are joined together. Fretting of aluminum parts produces a fine black powder, while steel produces a reddish brown or black residue.

CHECK FUSELAGE LEFT SIDE:

SKIDS AND SKID LEGS FOR CRACKS/ATTACHMENT

GROUND HANDLING WHEEL CONDITION

DOOR SAFETY PINS IN PLACE

POSITION LIGHT CONDITION/FUNCTION

Red NAV -

N/A

CHECK ENGINE LEFT SIDE:

DRAIN GASCOLATOR AND CLEAN FILTER

FUEL/OIL LEAKS

ALTERNATOR V-BELT TENSION

EXHAUST SYSTEM FOR CRACKS • MUFFLER HAS CRACK NEXT TO WELD

FRAME FOR CRACKS

FUEL/OIL HOSES FOR LEAKS/CHAFING

ELECTRICAL INSTALLATIONS FOR CHAFED CABLES/CORRODED CONNECTIONS

CHECK FUEL TANK LEFT SIDE:

FUEL LEAKAGE

QUANTITY

FILLER CAP TIGHT/VENT CLEAR

DRAIN FUNCTION

CHECK TAIL BOOM:

STEEL TUBES AND JOINTS FOR CRACKS/DAMAGE

TAIL BOOM ATTACHMENT BOLTS FOR WEAR/PROPER ATTACHMENT

TAIL ROTOR DRIVE SHAFT AND BEARINGS FOR CRACKS/DAMAGE/LEAKAGE***

STROBE LIGHT FOR CONDITION/FUNCTION

ANTENNA

TAIL LIGHT FOR CONDITION/FUNCTION

MI-003 INSPECTION OF HORIZONTAL STABILIZER

Accomplished

CHECK ENGINE RIGHT SIDE:

INLET AIR DUCT CONDITION

CARBURETOR HEAT BOX FOR CRACKS

CARBURETOR AIR INLET DUCT CONDITION

OIL COOLER FOR LEAKS/ATTACHMENT

COOLING SHROUD FOR CRACKS

FUEL/OIL HOSES FOR LEAKS/CHAFING

STARTER ATTACHMENT

ELECTRICAL INSTALLATIONS FOR CHAFED CABLES/CORRODED CONNECTIONS

RA EXHAUST CYLINDER PIPES

Pg 1 Completed 23 Nov

CHECK FUEL TANK RIGHT SIDE:

FUEL LEAKAGE

QUANTITY INDICATED 1/2 TANK / ACTUAL 1/2 TANK

FILLER CAP TIGHT/VENT CLEAR

DRAIN FUNCTION

CHECK FUSELAGE RIGHT SIDE:

SKIDS AND SKID LEGS FOR CRACKS/ATTACHMENT

GROUND HANDLING WHEEL CONDITION

DOOR SAFETY PINS IN PLACE

BALLAST WEIGHT SECURED

POSITION LIGHT CONDITION/FUNCTION GREEN NAV LIGHT

CHECK NOSE SECTION:

WINDSHIELD CONDITION AND ATTACHMENT

PITOT TUBE CLEAR CLEARED PITOT TUBE

CHECK CABIN INTERIOR:

BATTERY SECURE/PROPER ACID LEVEL

SEAT BELT CONDITON/ATTACHMENT

FUEL QUANTITY WITH MASTER BATTERY SWITCH ON

INSTRUMENTS/SWITCHES/CONTROLS CONDITON/FUNCTION

TOOLS/LOOSE ARTICLES IN CABIN

FLIGHT CONTROLS OPERATE FREELY WITHOUT BINDING

COLLECTIVE FRICTION FUNCTION

FLUIDS:

SECURE OIL SAMPLE KITS IN ADVANCE OF RUNNING ENGINE FOR 10 MINUTES BEFORE SAMPLING / DRAINING

DRAIN ENGINE OIL, INSPECT AND CLEAN OIL SCREEN/FILTER, INSPECT FOR METAL PARTICLES, REFILL OIL FILTER

SECURE OIL SAMPLE KITS IN ADVANCE OF RUNNING TRANSMISSIONS FOR 10 MINUTES BEFORE SAMPLING

DRAIN MAIN GEAR BOX OIL, INSPECT AND CLEAN CHIP DETECTOR/MAGNETIC PLUG, REINSTALL PLUG,

REFILL OIL No SAMPLE, FLUID Proper color & clear

DRAIN TAIL ROTOR GEAR BOX OIL, INSPECT AND CLEAN CHIP DETECTOR/MAGNETIC PLUG, RE-INSTALL

PLUG, REFILL OIL No SAMPLE, FLUID Proper color & clear

LUBRICATE ALL COMPONENTS PER LUBRICATION CHART

CHECK MAIN ROTOR :

GEAR BOX OIL LEVEL Duplicate

STEEL TUBE JOINTS FOR CRACKS

CONTROL ROD ENDS FOR FREE MOVEMENT/CONDITION

BUMP STOPS FOR CONDITION/ATTACHMENT

SPINDLE FOR VISIBLE CRACKS OR DAMAGE

HEAD BOX FOR PLAY/VISIBLE CRACKS/ATTACHMENT

SWASH PLATE FOR PLAY/VISIBLE DAMAGE/ATTACHMENT/BEARINGS TIGHT

PITCH LINKS FOR PLAY/BINDING AT ROD ENDS/ATTACHMENT

DISCONNECT PITCH CHANGE LINKS AT GRIP PITCH ARMS. ROCK MAIN ROTOR FORE AND AFT.

CHECK FOR ROUGHNESS IN BUSHING/BEARINGS. ROTATE EACH BLADE SEPARATELY TO CHECK

FOR ANY ROUGHNESS IN BLADE GRIP BEARINGS.

CHECK THAT BLADES TEETER FREELY WITHOUT BINDING.

INSPECT MAIN ROTOR HUB FOR CONDITION, LOOSENESS, BINDING ROD ENDS.

INSPECT GRIPS FOR VISIBLE CRACKS OR OIL LEAKAGE

BLADES FOR DAMAGE/CRACKS/EROSION/PROPER ATTACHMENT

BLADES SPAR/LEADING EDGE AREA FOR SIGNS OF DELAMINATION USING COIN-TAP METHOD

ALL BOLTS/FASTENERS TIGHT

ADD: CHECK BLADE TIPS for OBSTRUCTED DRAIN HOLES

Completed
20 NOV 2016

cleaned TUBE ✓
 1st squelch ✓ - A/spd ind Struck @ 35 KTS. Removed obstruction. ✓
 - Intercom - OK ✓
 - When MIC Keyed - Low fuel Lt & Fuel gauges illuminate go to zero

RF Interference
 Comp check 11/22/2016

1	80/75	✓
3	80/72	✓
2	80/78	✓
4	80/72	✓

weld oil ✓ - Muffler cracked at weld near ATTACHMENT
 C/TIE (x2) ✓ - Cabin HEAT Control Cable chaffing oil PSI Relief TUBE
 C/TIE (x2) ✓ - Fuel LINE CHAFFING Structure Bottom Left NEAR Fuselage, and oil Return from CYL 1 & 3 Valve covers.
 TREATED H/ware w/ ACF-50 ✓ - TAIL NAV Light Mount H/ware corroded.
 Required → ✓ - TARGET MAIN BLADE HAS DAMAGE ON LEADING EDGE -
 Replaced → ✓ - " " " MISSING WEDGE TAPE (small sections)
 welded → ✓ - EXHAUST HEATER Collector Bracket Broken on #1 EXHAUST TUBE

CHECK MAIN TRANSMISSION:

MAIN SHAFT FOR VISIBLE DAMAGE/CRACKS	☒
CHECK FOR COMPLIANCE WITH MANDATORY INSPECTION 001	☒
ROTOR MAST SUPPORT FOR VISIBLE CRACKS/DAMAGE	☒
MAIN GEARBOX FOR LEAKAGE	☒
OVER-RUNNING CLUTCH FUNCTION-BLADES TURN FREELY CCW	☒
REMOVE CLUTCH COVER PLATES TO INSPECT CLUTCH LINING FOR WEAR/CLUTCH SHOES FOR EXCESSIVE PLAY/WEAR	☒
COOLING FAN FOR CRACKS, PARTICULARLY IN THE INNER RADIUS AT THE BLADE ROOTS	☒

CHECK TAIL ROTOR:

AFT TAIL ROTOR DRIVESHAFT FLEX COUPLING FOR CRACKS/DAMAGE****	☒
HORIZONTAL STABILIZER FOR CRACKS/LOOSE FASTENERS/POSITION - MI003	☒
TAIL ROTOR GEARBOX OIL LEVEL/LEAKAGE/SECURE ATTACHMENT	☒
SWASH PLATE FOR DAMAGE/ATTACHMENT/BEARINGS TIGHT	☒
CONTROL ROD ENDS FOR FREE MOVEMENT/CONDITION	☒
ROTOR HEAD TEETERS FREELY/NO CRACKS	☒
BLADES-NO DAMAGE/CRACKS	☒
DELTA PIN BUSHINGS CLEAN/NO DAMAGE/CRACKS	☒
BUMP STOP BOLT SECURE AND DELTA PIN DOES NOT MOVE WHEN ROTOR HEAD IS TEETERED	☒
BUMP STOP FOR SECURE ATTACHMENT	☒
TAIL ROTOR PITCH CONTROL CABLE FOR WEAR/FRETTING	☒
DISCONNECT PITCH CHANGE LINKS AT GRIP PITCH ARMS. ROTATE EACH BLADE SEPARATELY TO CHECK FOR ROUGHNESS IN BLADE GRIP BEARINGS. INSPECT TAIL ROTOR HUB FOR CONDITION, LOOSENESS, AND BINDING ROD ENDS	☒

ENGINE:

COOLING SHROUD FOR CRACKS	☒
COOLING FAN FOR CRACKS AT INNER RADIUS AT BLADE ROOTS/SECURE INSTALLATION	☒
PERFORM ENGINE MAINTENANCE PER ENGINE MANUFACTURER'S OPERATION MANUAL. AT MINIMUM:	☒
- DRAIN CARBURETOR FLOAT CHAMBER, RE-INSTALL AND SECURE DRAIN PLUG	☒
- CLEAN CARBURETOR "FINGER FILTER", RE-INSTALL AND SECURE	☒
- CLEAN AND INSPECT CARBURETOR AIR FILTER/RE-INSTALL AND SECURE	☒
- REMOVE SPARK PLUGS, CLEAN AND ADJUST GAPS (.018"), RE-INSTALL WITH PROPER TORQUE (ANTI-SEIZE COMPOUND)	☒
- INSPECT IGNITION HARNESS FOR CHAGING, RE-INSTALL ON SPARK PLUGS	☒
- INSPECT AIR BAFFLES FOR CORRECT POSITION AROUND CYLINDERS	☒
- CHECK IGNITION TIMING (25° BTC)	☒
INSPECT MOTOR CONTROLS (RODS, ROD ENDS ETC) FOR BINDING OR EXCESSIVE PLAY	☒
INSPECT CYLINDER FINS FOR VISIBLE CRACKS OR CORROSION	☒
INSPECT ENGINE MOUNT FOR CRACKS OR CORROSION	☒
NOTE: CYLINDER COMPRESSION CHECK SHOULD BE PERFORMED ON WARM ENGINE	☒

FLIGHT CONTROLS:

FRICTION BLOCKS FOR CRACKS EXCESSIVE WEAR	☒
FRICTION BLOCK MOUNT BRACKET FOR CRACKS/CORROSION	☒
COLLECTIVE FRICTION FOR PROPER FUNCTION	☒
FLIGHT CONTROL BOLTS/WASHERS/NUTS FOR WEAR/ATTACHMENT	☒

Comp Readings

1 80/
2 80/
3 80/
4 80/

Completed
29 Nov
2016

ADD:
TAIL ROTOR
DRIVE SHAFT
Pillar BRG
Bracket
PIN (x6)

OIL
LEVEL IS
OK
FUNCTIONAL
CHECK 172

AIR
FILTER
REPLACED

FUNCTIONAL TEST:

COLLECTIVE/CYCLIC CONTROL FOR MOVEMENT

START ENGINE AND CHECK:

OIL PRESSURE/TEMPERATURE GAUGE

MAGNETO SWITCH LEFT/RIGHT

NAVIGATION/LANDING LIGHTS

AVIONICS

ALTERNATOR CHARGING

CYLINDER TEMPERATURE GAUGE

CARBURETOR TEMPERATURE GAUGE

VERIFY IDLE RPM

* CARBURETOR HEAT CONTROL

CABIN HEAT CONTROL

MIXTURE CONTROL

COMPASS

Parts

✓ AN960-416 L x 4

✓ AN4-12 x2

✓ AA48110-2 oil filter

✓ small Cotter Pins (x6)

~~AIR FILTER BA-6210~~

✓ 8qts 15W-50 AEROSHELL OIL

Light STROBE ✓

* Carb HEAT Cable BINDING

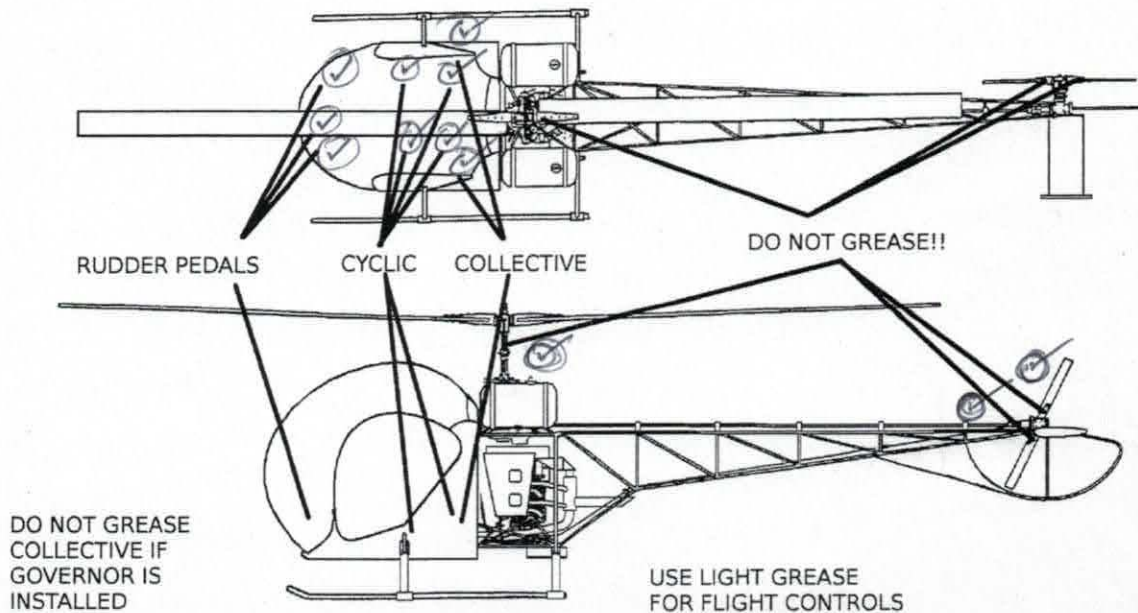
9.1. LUBRICATION CHART

CAUTION

The main rotor upper bearing support and tail rotor grips are to be serviced during overhaul only. Pressure build up inside the enclosed spaces could lead to premature seal failure and consequently premature bearing failure.

The following diagram display the lubrication points of the SAFARI Helicopter

LUBRICATION CHART



Picture 9.1

N211 CJ- Annual Lubrication
28 NOV 2016

Tail/R BLADES - greased and BLED OF Pressure

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