


AIR IMPRESSIONS, INC.
PROFESSIONAL AIRCRAFT SERVICE

Waco, Texas 76708
CRS No. [REDACTED]

Cessna S/N 310R-1238 N3844C

Aircraft TT: 9198.0
Hour Meter: 3559.0
Date: 07/01/2022
Heater HM: 1447.7

On above referenced aircraft, removed all inspection plates and panels for 100 Hour Inspection. Checked all pulleys, bellcranks, cables and fairleads. Checked all flight controls for security and movement. Inspected all wing, tail and landing gear attach points. Inspected all aircraft lighting and electrical. Ran gear retraction test per Cessna Service Manual. Inspected wheels, tires and brakes. Inspected fuel, hydraulic lines and fittings. Installed new fuel selector decals. Replaced seals around wheel wells as needed. Removed entry door and repaired lower attachment point and installed door. Installed new mooring ring retract springs. Replaced hinge for cargo door. Installed new seal for pilot's vent window. Installed Cessna SK414-8E for both main gear. Installed left and right angle, P/N 0822177-7 and 0822177-6 respectively. Repaired cracked skin areas above wheel wells. "See Maintenance Release." Installed new left main tire. Resealed right main gear strut and nose assemblies. Installed new brake discs and pad linings. Adjusted wheel alignment per service manual. Installed proper P/N of brake hose clamps at scissor assemblies. Installed new left main gear door outboard attachment rod end. Installed new main gear downlock brace bushings and spacers. Installed new left main gear pivot arm bushings and pin. Installed new left main gear brace assembly, P/N 0841110-3. Rigged system per 310R service manual. Replaced screws as needed for access panels. Installed new static wicks for elevators. Repaired leak at right tip tank. Adjusted nose steering cables per service manual. Cleaned and treated flap wells. Installed "alternator out" sensor on left side, P/N 9910094-3. Installed voltage regulator, P/N 9910126-3 for left side. Installed serviceable over voltage relays, P/N 9910068-2. Paralleled systems per service manual. Cleaned and treated in nose compartments. C/W A.D. 2014-03-03 per installation of placard. C/W A.D. 2016-17-08 per installation of new hardware. (Next due at 3669 HM.) C/W A.D. 2017-06-03 and disconnected heater assembly and placarded inop. (Heater must be overhauled prior to use.) Installed new instrument air filter. Tested ELT unit per FAR 91.207(d) requirements. (Battery next due 04/2023.) Cleaned and treated in AFT wheel access panel areas. Installed new main aircraft battery, P/N G-246, S/N GO3126947. Interior shop installed new carpet in nose and wing baggage compartments. All A.D.'s researched through bi-weekly 2022-14. See A.D. listings for all current and future compliance times. All above work done in accordance with Cessna Service Manual and Air Impressions, Inc. 100 Hour /Annual Inspection Checklist. Aircraft approved for return to service. Pertinent details are on file under work order 5419.

Air
CRS

MAINTENANCE RELEASE

The aircraft, airframe, aircraft engine propeller, or appliance identified was repaired and inspected in accordance with current regulations of the Federal Aviation Agency and is approved for return to service. Pertinent details of the repair are on file at this repair station under order No. 5419

Date 7.1.22 Signed [REDACTED]

for Air Impressions, Inc. [REDACTED]

NAME: Stephen Thomas	DATE: 5/05/2022
AIRCRAFT MAKE: Cessna	N3844C
AIRCRAFT SERIAL NO.: 310R 1238	WORK ORDER NO.: 5419

	<i>Subject</i>	<i>Corrective Action</i>	<i>Labor</i>
	Annual Inspection		
1.	Alternators not working properly.	Troubleshoot alternators. (See log entries.)	5.0
2.	Install customer supplied fuel selector lever decals.	Installed decals.	.25
3.	Both main gear door seals need replaced and along wheel wells.	Installed main gear door seals as needed.	2.5
4.	Entry door lower bracket slider loose at lower door.	Removed entry door and repaired nutplate area and reinstalled entry door.	7.75
5.	Air conditioner not blowing cool.	Troubleshoot and parts not available at this time.	2.75
6.	Both wing tie-down rings do not retract flush.	Installed new tie down ring spring on right and left wing.	5.0
7.	C/W SAIB Air21-20 and/or SAIB CE-13-27(R1) pertaining to flap cables.	Inspected ok at this time.	N/C
8.	Play at cargo door hinge assembly.	Installed new cargo door hinge assembly.	10.5
9.	Entry door interior chipped and partially missing.	Information only.	N/C
10.	Seal partially missing for vent window and window chipped/broken.	Installed seal.	.50
11.	Right static port not heating.	Note only per Stephen.	N/C
12.	Left wing baggage light switch inop.	Note only per Stephen.	N/C
13.	Left AFT cabin light switch inop.	Note only per Stephen.	N/C
14.	Oxygen system low.	Serviced system.	N/C
15.	Clean and lube engine control cable shafts.	Cleaned and lubed.	.5
16.	Prop deice gage inop.	Note only per Stephen.	N/C
17.	Defrost cable not working properly.	Lubricated cable at this time.	N/C
18.	Windshield alcohol deice inop.	Note only per Stephen.	N/C
19.	Pilot's rudder pedal return springs are broken.	Note only per Stephen.	N/C
20.	Sun visors little loose at mounts.	Note only per Stephen.	N/C
21.	Operational limits placard needs updated.	Updated placard.	N/C
22.	Did not see compass correction card.	Note: pilot has in P.O.H.	N/C
23.	Trim interfering with right inboard flap.	Adjusted as needed.	.25
24.	Post light hood missing for heater switch.	Note only per Stephen.	N/C
25.	Several post lights inop for instrument panels.	Note only per Stephen.	N/C
26.	Some post lights stay illuminated with Rheostat switches in off position.	Information only per Stephen.	N/C
27.	Both main gear webs are cracked.	Replaced both webb kits.	148.50
28.	Skins cracked above gear webb area.	Repaired skins above webb on both wings.	46.75
29.	Left main gear torque tube has 1/2-inch fork bolt and right has 5/8-inch fork bolt.	Information only per Stephen.	N/C
30.	Both main tires worn.	Installed new left main tire.	1.0
31.	Check main wheel alignment.	Adjusted wheel alignment per service manual.	3.0
32.	Right main strut leaking.	Reseal right main strut.	5.75

	<i>Subject</i>	<i>Corrective Action</i>	<i>Labor</i>
33.	Nose strut leaking.	Resealed nose strut per service manual.	5.5
34.	Both main gear center downlock brace grease fittings are missing.	Installed new grease zerk fittings.	.50
35.	Nose gear uplock bolt/spacer has play.	Installed new hardware and checked good.	.25
36.	Brake discs and pad linings are worn beyond limits.	Installed new brake discs and linings.	2.5
37.	Improper P/N brake hose clamps at center scissors attachment point.	Installed new brake hose clamps.	N/C
38.	Left main gear door linkage outboard rod end worn.	Installed new left main gear door outboard rod end.	.25
39.	Left main gear downlock brace bushings and spacers worn.	Installed new left down lock brace bushings.	3.5
40.	Right main gear downlock brace bushings and spacers worn.	Installed new bushings and spacers in right down lock brace.	3.5
41.	Left main gear pivot arm bushings and pins worn.	Installed new left pivot arm bearings and pin.	1.75
42.	Left main gear down lock housing assembly and adjusting scen and lower rod end worn.	Installed new left main gear down lock housing assembly and adjusted per service manual.	1.0
43.	Nose turn limit stop is loose.	Secured turn limit stop.	N/C
44.	Rig gear system 310R service manual.	Rigged gear system per service manual.	8.5
45.	Lube aileron attachment point bearings.	Lubed bearings as needed.	N/C
46.	Install new aileron attachment point hardware.	Cleaned and treated hardware on both ailerons.	N/C
47.	Patch on right aileron.	Information only at this time.	N/C
48.	Replace nutplate at lower right tip tank to wing access panel.	Removed screw and tapped nutplate at AFT tip tank. Installed riv-nut at upper and lower right wing (3 riv-nuts.)	.75
49.	Both top cowl oil access panel retract springs broken.	Note only per Stephen.	N/C
50.	Repaint nose gear turn limit marks.	Painted limit markings.	N/C
51.	Stains at right tip tank fuel filler access panel.	Cleaned stains at right tip tank filler access panel and leak checked good.	N/C
52.	Several screws corroded for fuel panels and other access on upper wings.	Installed new screws for fuel access panels.	3.0
53.	Rivet heads corroded off outboard right wing baggage nacelle closeout panel.	Replaced rivets as needed.	1.0
54.	Left wing baggage compartment seal retainers corroded.	Note only per Stephen.	N/C
55.	Patch on left elevator skin trailing edge.	Information only.	N/C
56.	Patch on right elevator skin.	Information only.	N/C
57.	Static wics missing from elevators.	Replaced both static wics.	.50
58.	Pin hole fuel leak in lower right tip tank near drain.	Installed hardware stat-o-seals and cleaned stains and checked good.	.75
59.	Nose gear doors and wheel well seals are missing.	Installed new nose well seals.	2.0
60.	Nose steering cable tensions are low.	Adjusted per service manual.	.50
61.	Clean and treat in and around button covers forward of flaps.	Cleaned and treated areas.	2.0
62.	Hardware loose for glare shield.	Secured hardware.	N/C
63.	Flap selector lever pointer cover missing.	Part not available and could not repair customers.	N/C
64.	Clean and treat external power receptacle area.	Cleaned and treated as feasible.	1.0
65.	Clean and treat AFT bulkhead in left wing baggage compartment.	Cleaned and treated AFT bulkhead in left baggage compartment.	.50
66.	Clean and treat flap wells and ribs.	Cleaned and treated flap wells.	6.5
67.	Both outboard flap panels bushings have play.	Replaced bearings on left and right outboard panels. And left outboard attachment bolt seized in bearing, had to cut and installed new bolt.	4.75

	<i>Subject</i>	<i>Corr. : Action</i>	<i>Labor</i>
68.	Did not see all 337's. (Recommend ordering FAA discs.)	Customer supplied FAA A/W disc.	N/C
69.	Nose baggage light stays on with door open and circuit breakers pulled.	Note only per Stephen.	N/C
70.	C/W A.D. 2014-03-03 per installation of placard prohibiting flight into known icing.	C/W A.D. 2014-03-03 installed placard prohibiting flight into known icing.	N/C
71.	C/W A.D. 2016-17-08 per installation of new trim tab rod hardware.	C/W A.D. 2016-17-08 per inspected trim tab rod hardware. Found newly replaced.	N/C
72.	C/W A.D. 2017-06-03 per inspection and test of heater assembly.	A.D. 2017-06-03 requirements failed on heater condition and placarded inop and disconnected.	2.0
73.	Replace instrument air filter.	Replaced instrument air filter.	.25
74.	Oxygen bottle appears due hydrostatic test.	Note only per Stephen.	N/C
75.	Test ELT unit per FAR 91.207 (d) and check battery date.	Tested ELT unit per FAR 91.207 (d) tested good. Battery due 4/2023.	N/C
76.	No record of main aircraft battery being replaced in past 48 months.	Note only per Stephen.	N/C
77.	Several supply ducts from heater have holes and deteriorated and need replaced.	To be C/W at heater OH per Steve.	N/C
78.	Leak at heater fuel pump assembly.	Replaced fuel pump and troubleshoot system and replaced duct at front of heater.	3.75
79.	Fuel stains at access panel outboard of battery box.	Cleaned and reinspected good.	N/C
80.	Both tip tank attachment strap hardware is corroded/rusted.	Cleaned and treated both tip tank AFT attachment strap hardware.	.50
81.	Inboard center fuel pump access leaking out right tip tank.	Retorqued screws and cleaned stains and leak checked good.	.25
82.	Fuel leak at right tip tank AFT access panel.	Defueled and resealed access panel.	3.5
83.	Fuel stains at left aux tank access panel area-2 nd inboard of tip tank.	Cleaned and reinspected good.	N/C
84.	Recommend to clean and treat in AFT wheel well access panel areas.	Cleaned and treated in wheel well access panel areas.	6.0
85.	Recommend to clean and re-zinc wing spar fittings.	Cleaned and treated.	.75
86.	Several areas of corrosion on flap push pull tubes and replace corroded rod end. (Especially in right wing.)	Cleaned and treated.	3.0
87.	Replace bad nutplate at right lower tip tank to wing access panel.	Installed riv-nut as needed.	.50
88.	Clean and treat in both lower nose compartment as needed.	Clean and treated in both side of nose compartment.	2.0
89.	Left MLG AFT wheel half needs cleaned and treated.	Cleaned, treated, and painted left MLG AFT wheel half.	1.0
90.	Right MLG brake back plate needs 2 rivets replaced.	Installed 2 new brake rivets on left MLG back plate.	.50
91.	6 brace rivets need replaced on right brake backing places.	Installed new 6 rivets on brake back plate.	.50
92.	Replaced wing baggage and nose baggage carpet.	Installed new carpet in wing and nose compartment.	FF
93.	Resealed right brake caliper.	Resealed right brake caliper and bled and serviced system.	1.5
94.	Nose wheel bearings and races are pitted.	Installed new bearings and races on nose wheel.	.75
95.	Lube pilot and co-pilot seat adjustment jackscrews.	Lubed pilot and co-pilot jackscrews.	N/C
96.	Wing baggage compartment carpet trim strips corroded.	Manufactured and installed metal strips.	2.25
97.	Break-in flight with customer.	C/W.	1.0

NAME: Stephen Thomas	DATE: 5/5/2022
AIRCRAFT MAKE: Cessna	N3844C
AIRCRAFT SERIAL NO.: 310R 1238	WORK ORDER NO.: 5419

	<i>Subject</i>	<i>Corrective Action</i>	<i>Labor</i>
	Left Engine-277873-R Prop S/N 797200		
1.	Check proper routing of prop cable and housing separated.	Checked proper routing of cable.	N/C
2.	Install all new Teflon hoses.	Installed all new Teflon hoses.	3.0
3.	Prop has one blade with inop deice heat.	Information only per Stephen.	N/C
4.	Outboard exhaust is chafing nacelle at carry thru exit. (See #12). (May need to replace outboard cable support).	Trimmed carry through exit as for exhaust muffler pipe not to chafe nacelle skin.	.50
5.	Perform setup of systems and rig engine control levers.	Performed setup of systems and rigged	2.75
6.	#4 cylinder had low compression 32/80.	Installed O/H cylinder at #4 position.	14.75
7.	Ran compression check and readings were: #1) 60/80, #2) 70/80, #3) 65/80, #4) 32/80, #5) 60/80, and #6) 58/80.	Information only at this time.	N/C
8.	Prop cable housing has separated.	Installed repair on left prop cable.	.50
9.	Prop deice brushes need adjustment.	Note only per Stephen.	N/C
10.	Reinstall inner cylinder baffle between #2 and #4 cylinder.	Reinstalled upper cylinder baffle between #2 and #4 cylinders.	N/C
11.	Hardware loose and improper P/N of washers installed at exhaust riser to exit pipe.	Installed proper washers and adjusted slip joint hardware at exhaust riser to exhaust muffler.	1.5
12.	Exit pipe's cable supports have several wires/cables broken.	Note only per Stephen.	N/C
13.	Recommend to clean and treat AFT beams and bulkheads as feasible.	Cleaned AFT beams and bulkheads as feasible.	.50
14.	C/W A.D. 84-26-02 per installation of new induction air filter.	N/A (P/C/W at 2/2022).	N/C
15.	Magnetos are due 500 hour recommended inspection/replacement.	Installed O/H magnetos and timed per I/A/W TCM service manual.	3.25
16.	Vacuum pump is due 500 hour recommended replacement.	Note only per Stephen.	N/C
17.	Perform oil and filter change.	Performed oil change.	1.0
18.	Re-bond boot on prop if not replaced.	Rebonded boot.	.25

NAME: Stephen Thomas	DATE: 5/5/2022
AIRCRAFT MAKE: Cessna	N3844C
AIRCRAFT SERIAL NO.: 310R 1238	WORK ORDER NO.: 5419

	<i>Subject</i>	<i>Corrective Action</i>	<i>Labor</i>
	Right Engine-565854 Prop S/N 720597		
1.	Install all new Teflon hoses.	Installed all new Teflon hoses.	3.0
2.	Prop has one blade with outboard/or inboard deice heat inop.	Note only per Stephen.	N/C
3.	Perform setup of systems and rig engine control levers.	Performed setup of systems and rigged	2.75
4.	Prop appears 180 degrees out on install.	Turned prop 180 degrees and reinstalled with new "O" ring.	N/C
5.	Ran compression check and readings were: #1) 66/80, #2) 60/80, #3) 68/80, #4) 70/80, #5) 74/80, and #6) 74/80.	Information only at this time.	N/C
6.	Recommend to clean and treat AFT beams and bulkheads as feasible.	Cleaned AFT beams and bulkheads as feasible.	.50
7.	#4, #5 and #6-cylinder rocker cover gaskets are leaking.	Retorqued screws and checked good at this time.	N/C
8.	Improper P/N hardware from exhaust risers to exit pipe.	Installed new hardware and saftied.	1.75
9.	C/W A.D. 84-26-02 per installation of new induction air filter.	N/A (P/C/W at 2/2022).	N/C
10.	Magnetos are due 500 hour recommended inspection/replacement.	Installed O.H magnetos and timed per specs.	3.25
11.	Vacuum pump is due 500 hour recommended replacement.	Note only per Stephen.	N/C
12.	Perform oil and filter change.	Changed oil and filter.	1.0
13.	Replaced spark plugs.	Installed new spark plugs.	N/C
14.	Prop deice brushes need replaced.	Note only per Stephen.	N/C
15.	Outboard riser has heat deterioration.	Installed new riser assembly.	2.0

AIR IMPRESSIONS, INC.

ANNUAL INSPECTION

100 HOUR INSPECTION

Section: VI.

Page No.: 1

Title: Form F

Annual/100 Hour Checklist

Issue Date: 04/04/2011

NAME Stephen Thomas WORK ORDER NO 5419
 AIRCRAFT MAKE Cessna AIRCRAFT MODEL 310R
 REGISTRATION NO N 3844C SS# 310R1238 DATE 5-4-2022

ENGINE RUN-UP		Left Engine Inspector	Right Engine Inspector
1	Engine temperatures and pressures		
2	Static RPM, MP and Fuel Flow		
3	Magneto drop (refer to owner's manual)		
4	Engine response to changes in power		
5	Any unusual engine noises		
6	Fuel selector and/or shut off valve. Operate engine(s) on each tank (or cell) position and OFF position long enough to insure shutoff and/or selector valve function properly		
7	Idling speed and mixture-Proper idle cut-off		
8	Alternator and ammeter		
9	Suction gage		
10	Fuel Flow Indicator		
AIRFRAME		Insp	Mec
1	Fuselage general condition including tail assembly, vertical and horizontal		
2	External damage, dents, cuts or wrinkles		
3	Loose rivets		
4	Paint		
5	Corrosion		
6	Check wings for loose rivets, wrinkles, damage, cracks, corrosion, dents and paint		
7	Check internal wings and nacelle structure I/AW Service Manual Type "B" inspection		
8	Inspect stationary instrument panel for cracks at fuselage station 118.55 (414-0001 to 414-0351 only) fuselage station 120.00 for 340 and 340A		

TYPE B INSPECTION-		Inspected	By
Due at 6000 hrs for 340, 340A, 414, 414A, both LH and RH thereafter for 414, 414A, 3000 hrs for 340, 340A			
1	Cabin structure (partial upholstery & floorboards in these areas are to be removed)		
2	Inspect entire front spar bulkhead at fuselage station 154.5 on 414, 414A both LH & RH, especially around tightening holes. Same inspection on 340 340A at station 152.75		
3	Inspect front spar carrying thru noting especially the critical points per figure 2-14 in service manual. 340, 340A, 414 and 414A, same inspection		
4	Inspect rear spar bulkhead at station 184.40 on 340 & 340A. Station 186.15 on 414 and 414A.		
5	Inspect rear spar carrying thru at fuselage station 184.40 on 340, 340A. Station 186.15 on 414 and 414A		
6	Inspect aft pressure bulkhead at fuselage station 252.00 on 340, 340A. Station 273.94 on 414-0001 thru 414-0351. Station 289.94 on 414-035		
ANNUAL INSPECTION ONLY		Inspected	
CABIN STRUCTURE		Mechanic	
TYPE C INSPECTION-First time at 13,200 hrs and every 3600 hrs thereafter. This is a completed visual inspection of the structure. For this inspection the floorboards and upholstery must be removed. Shaded areas in Figure 2-9, 2-10, 2-11, 2-12, 2-17, 2-18, 2-19, 2-20 and 2-21 of Service Manual			
1	Inspect forward pressure bulkhead especially in noted areas at fuselage station 100.00 on 340, 340A, 414 and 414A		
2	Inspect windshield, cockpit side windows, cabin windows, matching area for cracks, nicks, Dents, deep gouges, loose rivets or structural fasteners		
3	Inspect instrument panel fasteners at fuselage station 118-55 on 414 thru 414 0351 only and at station 120.0 for 340 and 340A		
4	Inspect bulkhead structure mountings and skin fasteners at station 141.35 on 414 thru 414-0351 only. Cantled windshield bulkhead and fastener at station 118.00 on 340 and 340A		
5	Inspect bulkhead for structure mounting at LH & RH sides at station 132.00 on 340, 340A. At station 166.95 on 414, 414A		
6	Open escape hatch & inspect frame 340, 340A, 414 and 414A		
7	Inspect cabin door frame supporting bulkheads at fuselage station 209.41 on 340, 340A. At station 255.50 on 414, 414A		
8	Inspect cabin door frame at station 221.00 on 340 and 340A. Supporting door frame bulkheads at station 211.00, 212.87, 235.50 and 238.13 at noted critical areas, especially on 414 and 414A		
9	Inspect cabin door frames, hinges, hinge pins, hinge support castings and support castings attachments on 340, 340A and 414, 414A		
10	Remove cabin door latch pin receptacles and guides from cabin door and door frame. Inspect for wear, cracks, dents, fatigue and re-install		
11	Inspect entire bulkhead at station 252.00 on LH and RH mounting on 340, 340A. Station 255.00 on 414 and 414A		
12	Inspect skins, skin attaching rivets and skin splices in cabin area of 340, 340A. On 414, 414A inspect entire bulkhead at fuselage station 277.00, especially critical points as noted on Figure 2-10A in 414, 414A Service Manual		
13	Inspect all slingers behind upholstery and under floorboards 340, 340a, 414, 414A		
14	Inspect re-installation items after complete on items removed		

CABIN STRUCTURE		Inspected	By
1	Windshield and windows - Check for cracks, leaks		
2	Cabin door - Check for condition and operation		
3	Cabin door seal - Check for cuts and abrasions, excessive wear and evidence of cabin pressurization leaks		
4	Door latch pin (upper & lower) Check for damage, cracks, wear and rigging		
5	Door latch pin guides - Check for damage, cracks and wear		
6	Door latch pin receptacle - Check for damage, cracks and wear		
7	Baggage doors - Check condition and operation		
8	Nose ram air - Check clamps and hoses to heating & ventilating system for condition & security		
9	Heater check - Security, operation, leaks, AD compliance		
10	Seats & seat belts - check condition, security & operation		
11	Upholstery and carpet - general condition		
12	Instruments - Check condition and security		
13	Control quadrant - Check for condition and security		
HYDRAULIC LANDING GEAR INSPECTIONS		Inspected	By
1	Main & nose gear actuators, lines, hose, switches & linkage. Check for leaks, condition & security	NA	NA
2	Check throttle retard landing gear horn and stall warning horn. Check flap extend horn with gear up.	NA	NA
PERFORM RETRACTION TEST & EMERGENCY EXIT TEST		Inspected	By
3	Airplane jacked per Service Manual	Mechanic	Inspector
4	With gear down & locked, three green lights should be on. Hydraulic flow lights should be on at all time with external power on		
HYDRAULIC LANDING GEAR INSPECTIONS		Inspected	By
5	Hydraulic Service Unit attached per Service Manual	Mechanic	Inspector
6	Verify security of reservoir		
7	Verify landing gear switch position is the same as landing gear position		
8	Hydraulic Service Unit on per instruction & return fluid free of air		
9	Cycle landing gear several times to assure fluid is free of air. NOTE: Hydraulic Press Light should illuminate any time gear is cycled		
10	Cycle gear & determine times (lock to lock by light indicator)		
11	Time to retract should not exceed 8.0 seconds		
12	Time to extend should not exceed 12.0 seconds		
13	Observe that unsafe light is illuminated while gear is in transit		

HYDRAULIC LANDING GEAR INSPECTIONS (cont)		Inspected Mechanic	By Inspector	Section: VII Page No.: 1. Title: Form F, Annual/100 Hour Checklist Issue Date: 04/04/2011
14	During retraction the Service Unit High Pressure gage should read 600-800 PSIG for the most of the cycle. Peaking to 1500-1750 just before up lock			
15	During extension the high pressure gage should be 250-400 PSIG peaking at 1200-1750 PSIG just before down lock			
16	Check rigging and operation of doors			
17	Remove Service Unit & External Power Supply per instruction			
EMERGENCY GEAR EXTENSION		Inspected Mechanic	By Inspector	
1	Retract and shut down Service unit			
2	Drain airplane hydraulic reservoir			
3	Disconnect service hoses			
4	Provide catch container below reservoir vent line			
5	Pull hydraulic circuit breakers			
6	Verify blow down bottle pressure is with green ARC			
7	Verify lightness & security of reservoir filler plug			
8	Verify gear select switch is in down position			
9	Clear all personnel from the area			
10	Pull "E" handle in brisk firm motion (Max movement is .75") All three gears should blow down and lock within 3 seconds			
11	Reposition "E" gear handle			
12	Loosen blow down line at bottle filling to allow residual pressure to bleed off. CAUTION: AVOID BLAST OF HIGH PRESSURE NITROGEN. DO NOT OPERATE L.G. SYSTEM BEFORE BLEEDING OFF "E" BOTTLE TO PREVENT DAMAGE TO HYDRAULIC RESERVOIR.			
13	Attach a small hose to blow down line and run into container to catch residual fluid when resetting shuttle valve			
14	Push left L.G. hydraulic circuit breaker. Observe three (3) green lights.			
15	Retract service unit and select 1.5 GPM			
16	Select gear up. The instant one green light goes out, select gear down. This will build up pressure enough to re-set the shuttle valve.			
17	Cycle gear while slowly increasing flow to 3 GPM until return fluid is free of air. Select 5 GPM and note times pressures in LG operational check			
18	Cycle minimum of 5 times.			
SPECIAL LANDING GEAR RIGGING CHECKS-Per Service manual (T310, 340, 340A, 414, 401A, 401B, 402B)		Inspected Mechanic	By Inspector	
1	Disconnect landing gear door and ends of main drive tubes per Service Manual			
a.	Check Internal stops of manual extension handle per Service Manual			
b.	Inspect drive tubes, trunnions, retracting linkage and wheel well areas			

SPECIAL LANDING GEAR RIGGING CHECKS-Per Service manual (T310, 340,340A, 414, 401A, 401B, 402B) (Continued)		Inspected Mechanic	By Ins	Section: VI Page No: 14 Title: Form F Date: 04/04/2011
	c. Inspect landing gear retraction linkage for excessive wear, looseness, dents, cracks, bolts, bends, and deep scratches			
2	Check main gear door tensions <i>24 up 20 RT up 20 24 down 20 RT down 20</i>			
	a. Adjust tube rod ends and/or limit switches to obtain proper tension if tension not per service manual			
	b. If adjustment made, check hand crank internal stops (Step 1)			
3	Check landing gear free fall			
	a. Main gear free fall with outboard drive tubes disconnected			
	b. If free fall test failed, inspect per Service Manual (Detail E, Items A thru E)			
	c. If these inspection satisfactory adjust per detail E 1 of Service Manual			
4	Check landing gear drop off Service Manual			
5	Check uplock hooks for engagement per Service Manual			
	a. Adjust uplock hooks per Service Manual			
6	Check down lock tension per Service Manual <i>14.52 14.42</i>			
	a. Adjust down lock tension per detail H-1 of Service Manual if required <i>(14.52)</i>			
7	Nose gear connector link for proper over center travel			
	a. Adjust over center travel if necessary			
8	Check nose gear down lock tension <i>30</i>			
	a. Adjust per K-1 of Service Manual			
9	Check nose gear up lock tension <i>30</i>			
	a. Adjust nose gear uplock tension per detail L-1 of Service Manual			
LANDING GEAR		Inspected Mech		
1	Main landing gear actuator - check for condition, security, cracks, sheared rivets, worn bushings, loose connections, riggings. Check throttle retard-landing gear horn, check stall warning horn. Check flap extend horn with gear up. Perform emergency extend per emergency procedures.			
2	Emergency extension system-check for condition operation			
3	Main & nose landing gear assemblies-check for security, worn bushing, sheared rivets, loose joints, riggings.			
4	Rigging inspection-special landing gear rigging check per service manual. See Supplement page 4-1 or 4-1A			
5	Torque links-check wear and conditions			
6	Nose and main gear retracting linkage - check for condition			
7	Drive tube seals - check for security, position and wear			

LANDING GEAR (continued)		Inspected Mechanic	By Insp	Section: VI Page No.: 15 Title: Form F Date: 01/04/2011
8	Shock strut servicing - check for proper servicing			
9	Nose gear shimmy dampener - check fluid and condition			
10	Nose wheel steering system - check cable tension, travel, and gimbal for condition and mounting bolts for proper torque			
NOSE GEAR UPLOCK ENGAGEMENT INSPECTION				
11	With landing gear in the UP position, check the clearance between uplock hook and the spacer on the strut with which the hook engages. NOTE: Access cover is provided in the top of the nose gear wheel well to check uplock hooks in the gear UP position with door closed.			
12	Adjust uplock hook to obtain a minimum clearance of 0.003 to 0.0060 inches and a maximum clearance of 0.006 inches at the closest point, which should be at the underside of the spacer, near fully engage position of the hook. NOTE: An adjustment of uplock hook, elongated holes are provided in the supports to which the hook is attached.			
13	Operate landing gear several times to observe the uplock hook. The hook must engage and disengage freely with no indication of binding between the hook and spacer.			
14	Gear down indicator light switches for proper adjustment			
	a. Note number of turns of manual extension per Detail N checklist			
	b. Adjustment per Detail N-1 and N-2			
15	Nose and main landing gear doors for proper fit			
16	Check safety switch operation			
	a. Perform safety switch per Detail Q-1 items 1 thru 4 of Service manual			
	b. Adjustment of safety switch per Detail Q-1 of service manual			
17	Final inspection of landing gear components if adjustments were made of cotter pins, fillings, torques, access plates for complete return to service installations.			
18	Nose and main wheels and tires - check wear, condition and tire pressure every 50 hours and at tire replacement			
19	Wheels bearings - check and repack first 100 hrs and 200 hrs thereafter. N/A if accomplished within last 200 hours			
20	Brake system plumbing - Check wear leaks, hoses for bulged and deterioration, parking Brake for operation			
21	Brake assemblies - check wear of lining and disk warpage			
22	Master cylinder - check fluid levels			
23	Perform emergency blow down system test once yearly. Check emergency blow down bottle for security and attachment			
24	Nose and main gear shock struts - check for evidence of leakage, proper extension; check strut barrel for corrosion, pitting and cleanliness			
25	Nose gear fork - inspect for cracks, general condition and security of attachment			
26	Lube and grease all gear points			

FLIGHT CONTROLS		Inspected Mechanic	By Inspector	Section: VI Page No.: 16 Title: Form I Our Checklis 04/04/201
1	Control column - check for security, looseness, wear and proper rig			
2	Aileron - check hinge, bell crank, stop bolt for looseness and/or jam nut for being tight, linkage and bolt for condition, operation, security and travel.			
3	Aileron trim tab - check hinge for cracks, wear. Bolts for proper safety and tab travel			
4	Aileron trim tab actuator - check travel linkage for condition and security			
5	Aileron and aileron trim cables - check for tension, fraying and turnbuckles for safety - check pulleys for condition and security			
6	Elevator - check hinges and hinge bolts, bell cranks and push rod connecting bolt and stop bolts for security and condition			
7	Elevator - check hinges and hinge bolts, bell cranks and push rod connecting bolt and stop bolts for security and condition			
8	Elevator trim tab actuator - Check travel, condition, and security			
9	Elevator and elevator trim tab cables - Check tension, fraying, and turnbuckles for safety. Check pulleys for condition and safety			
10	Electric elevator trim - Check for security, condition travel and travel time			
11	Rudder - Check hinge, bell crank, stop bolts and jam nut for looseness, torque tube and connector links for security and safety. Check travel			
12	Rudder trim tab - Check security and condition, linkage and travel			
13	Rudder trim tab actuator - Check travel, mountings for security			
14	Rudder trim tab cables - Check tension, fraying and turnbuckle for safety, check pulleys for condition and safety			
15	Flaps - Check linkage, bell cranks, pulley and cables for condition and safety			
16	Flap motor and position indicator - Check for travel, condition and security			
17	Flap actuator assembly - Check for condition, security and specification compliance			
18	Flap limit switch and motor - Check wiring and terminals			
19	Cable seals - Check for tears and security			
20	Autopilot (optional equipment) - Check cables, attachments pulleys and turnbuckles for tension, condition, operation and security			
21	Lubricate all trim chains			
22	Lubricate all cable pressure grommets			
23	Lube flap hinge assemblies			
24	Check spoiler reservoir			
25	Check STOHL reservoir			
ENGINE GROUP				
1	Engine - Wash, check for security of accessories			
2	Cowling - Wash, check for cracks, evidence of abrasion and wear			
3	Induction air filter - Clean every 50 hours or sooner when dust condition exist			
4	Induction manifold - Check connections for condition			

ENGINE GROUP (continued)		Mechanic	Inspector																												
5	Engine oil pressure system - Check for leaks, bends, cracks and security																														
6	Engine oil filter - Change oil filter element and inspect adapters																														
7	Engine oil - Change <i>Aero 100 plus</i>																														
8	Engine oil breather separator - Inspect and clean element every 50 hours or sooner when dust condition exist <i>As Required</i>																														
9	Engine compartment - Visually check for condition, oil leaks, fuel leaks, etc																														
10	Engine controls - check travel and security																														
11	Engine wire bundle - Check for condition and security																														
12	Engine mounts - Check for condition and security																														
13	Engine compartment hose - Fuel (check fuel lines under pressure), oil vacuum, etc., Check deterioration, leaks, discoloration, bleaching and rubber hose for stiffness																														
14	Compression Checks:																														
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	66 / 180	60 / 180	68 / 180	70 / 180	74 / 180	74 / 180																									
15	Engine cylinders, rocker box covers and pushrod housings, check for fin damage, cracks, oil leakage, security of attachment and general condition.																														
16	Crankcases, oil sump an accessory section - Inspect for cracks and evidence of oil leakage. Check bolts and nuts for looseness and retorque as necessary																														
17	Plug - Clean and rotate (top right to bottom left, top left to bottom right) or replace <i>See SQUAK for R.H.E</i>																														
18	Ignition cables - Check condition and security																														
19	Magneto - Check timing, breaker gap and security (if not FWF) <i>See notes?</i>																														
20	Alternator - Check brushes, leads, bearings and slip rings. N/A if accomplished within last 500 hours																														
21	Alternator - A.D. > compliance at 100 amp																														
22	Starter - Check brushes, commutator and electrical connections																														
23	Propeller governor - Check for oil leaks, condition and security																														
24	Pumps - Fuel, vacuum and autopilot - Check for leaks, condition and security																														
25	Turbocharger - Check for condition, bulges, warps and security																														
26	Engine exhaust system - Check for security, cracks, bellows, spring tension, couplings, clamps and redundant support																														
27	Engine exhaust system - Check for security, cracks, slip joint, spring tension, visually inspect slip joint seals couplings, clamps and redundant support																														
28	Wastegate valve, variable absolute pressure controller and rate controller, check for condition and security. Visually check springs and linkage																														

ENGINE GROUP (continued)		Inspected Mechanic	Section: VI Page No.: 18 Title: Form F Hour Checklis ate: 04/08/201.
29	Manifold pressure relief valve - Visually check for obstructions, conditions, security and proper operation		
30	Variable absolute pressure controller - Check for condition and security		
31	Engine compartment fire extinguisher - Check system, pressure, condition and security		
32	Lube and cycle wastegate		
33	Lube VAPC linkage points		
<i>Non-turbo charged Naturally Aspirated.</i>			
PROPELLER			
1	Blades - Check for nicks, cracks, scratches and blade angle and dress blades if necessary		
2	Propeller cylinder - Check bolts for security and blade track		
3	Bulkhead - Check for cracks and security of crankshaft		
4	Propeller - Check for oil leaks		
5	De-ice system electrical leads - Check condition and security		
6	De-ice system brushes - Check for wear and seating		
7	Propeller spinners - Wash, check for cracks and fractures		
8	Propeller mounting - Check nuts for security		
9	De-ice slip ring mounting - Check nuts for security		
10	Propeller unfeathering accumulator - Check for leaks, condition and proper charge		
11	Propeller Synchronizer - Check condition and security		
12	Propeller Synchrophaser - Check condition and security		
FUEL SYSTEM			
1	Metering unit filter screen - Clean unless cleaned within last 100 hours		
2	Fuel injection system and manifold - Inspect for leaking		
3	Fuel discharge nozzles - Inspect orifices and clean		
4	Fuel selector valve - Perform operational check, feel for detents through 270 degrees, check linkage, bearings, pins for condition and security		
5	Selector valve - perform an operational check		
6	Sediment bowl - drain		
7	Fuel selector valve filter - Clean unless accomplished within 100 hours		
8	Fuel system main - Inspect for leaks and operation (daily)		
9	Fuel system main - Inspect plumbing and components mounting for condition, security. System for leaks		
10	Tip tanks - Inspect mounting bolts for security, tip tank for leaks, cracks, and dents, cracks at welds		
11	Boost pumps (auxiliary) inspect for leaks, operation, vent and overhead drain for obstruction		
12	Tip tank vents and nose cap drain. Inspect for obstructions daily		

FUEL SYSTEM (continued)		Ins	Me
13	Auxiliary tanks - Inspect system for security and operation		
14	Heater fuel filter - Clean, unless accomplished within last 200 hours <i>Heater Inop</i>		
15	Main tank transfer pump - Check security and mounting		
16	Main tank transfer pump filter - Clean unless accomplished within last 200 hours		
17	Wing locker transfer pump - Check for leaks and security of mounting		
18	Auxiliary in line pump - Check for leaks and security		
19	Auxiliary in line pump filter - Inspect and clean element unless accomplished in last 200 hours		
20	Wing leading edge vent hole - Check for obstruction		
OXYGEN SYSTEM		Ins	Me
1	System - Check installation, mounting and pressure. Service		
2	Oxygen regulator - Check pressure and rate of flow		
3	Oxygen mask and hoses - Check condition and clean		
VACUUM SYSTEM		Ins	Me
1	Filter - Clean unless accomplished within last 200 hours		
2	Relief valve - Check security and filter for obstruction		
3	Hoses - Inspect for hardness, deterioration, looseness and bulging		
4	Vacuum pump - Check for leaks, condition and security		
SURFACE DE-ICE SYSTEM		Ins	Me
1	De-ice system - Check for leaks, condition and operation of controls, lines and clamps for security		
2	De-ice boots - Check for abrasion, cuts, nicks and security of mounting		
3	De-ice filter - remove, clean and replace unless accomplished within last 200 hours		
HYDRAULIC SYSTEM		Ins	Me
1	Hydraulic pump - Check for leaks, condition and security		
2	Hoses - Inspect for hardness, deterioration, looseness and bulging		
3	Hydraulic fluid filter - Change element first 100 hours and 400 hours thereafter. No action if accomplished within last 400 hours		
4	Hydraulic system - Inspect plumbing and components mountings for condition, security, system and leaks		
5	Hydraulic manifold - Check for condition, security and leaks		
6	Hydraulic system pressure switch - Check for function and for leaks		
7	Hydraulic system flow switches - Check for function and for leak		

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AIR CONDITIONING SYSTEM (Belt Driven)

- 1 Check compressor belt
- 2 Check mounting components
- 3 Check tension on compressor drive belt

Inop

AIR CONDITIONING SYSTEM

- 1 Compressor and Motor - Check condition and security
- 2 Hydraulic lines - Check for leaks, condition and security
- 3 Evaporator fan - Check blades for nicks, looseness and security
- 4 Check air conditioner hydraulic reservoir

INSTRUMENTS

- 1 Instruments - Check markings and condition per date sheet or applicable STC

PRESSURIZATION SYSTEM COMPONENTS

- 1 Check for leaks and known discrepancies. Safety valve check for security and operation
- 2 Outflow valve - Check for security and operation
- 3 Outflow valve filter - Clean
- 4 Safety valve filter - Clean
- 5 Variable pressure controller filter (optional system) - Check
- 6 Heat exchange - Drain oil. Check for security and air passage obstruction
- 7 Dump valve - Check for security and proper operations
- 8 Door seals - Check for proper installation, cuts, wear and abrasion
- 9 Test flight to altitude for pressurization check as required

ALCOHOL WINDSHIELD ANTI-ICE SYSTEM

- 1 Check reservoir for proper service
- 2 Check nozzles for security and obstruction
- 3 Anti-ice system - Check for leaks, condition and operation of controls
- 4 Pump - Check for leaks, condition and security

ELECTRICAL SYSTEM

- 1 Junction box and circuit breaker panel - Check wiring and terminals for conditions and security
- 2 Pedestal and instrument panel - Check wiring and terminals for conditional and safety
- 3 Regulators - Check wiring and terminals for condition and security
- 4 Switches - Check for security and interference
- 5 Wing and fuselage - Check wiring bundle for condition and security

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ELECTRICAL SYSTEM (continued)

- 6 Battery- Check electrolyte and general condition and security
- 7 Battery cables - Check for corrosion, condition, and security
- 8 Battery box - Check corrosion, condition and security. Clean vent tube
- 9 Instrument and interior lights - Check lights for operation
- 10 Radio and navigation system - Check for condition and security
- 11 Emergency locator transmitter - Check for condition, operation, security and battery pack expiration date *April 23*
- 12 Warning lamps - Check condition. Rotating beacon, nav lights, strobe lights, landing lights and taxi lights.
- 13 Antenna - Check mounting and security

PITOT-STATIC SYSTEM

- 1 Sump - Check for cracks, dent, leads and the presence of water
- 2 System - Leak check
- 3 Alternate static drain - Check for obstruction and drain

POST INSPECTION

- 1 Correct all discrepancies, replace all fairings, doors and access hole covers
- 2 Ground check engine, check ignition drop alternator charging rate, oil pressure and general operation of components
- 3 Check that all applicable current airworthiness regulations are complied with

Ensure Retief Tub is clear

*Paul
Arisspeken*

