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SA 227 CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM

REVISION: TWO

DATE: May 15, 2026

FAIRCHILD Metroliner SA227 Series

SERIAL NUMBERS APPLICABLE

AC-525, AC-583, AC-621 B

Digital Copy available for all employees on TransNorthern Employee web page.

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REGULATORY AUTHORITY

14CFR §135.425 requires an inspection program and a program covering other maintenance. This document is the Inspection Program or Continuous Airworthiness Maintenance Program (CAMP) for the Metroliner aircraft described in the rule. 14CFR §135.427 requires operators of 10 or more passenger aircraft to put in its manual instructions for performing maintenance, preventive maintenance, and alterations. The Company's General Maintenance Manual (GMM) contains the additional information required by the CFR for maintaining aircraft that are type certificated for a passenger seating configuration of 10 or more passengers and is "a program" as mandated by §135.425, whereas this manual is the inspection program with the airworthiness limitations for the specific aircraft listed on the Title Page.

Note: This CAMP Inspection Program is authorized for inspections and time in service limitations for TransNorthern All Cargo, Aircraft STC'd to 9 or less passenger and 10 or more passenger SA227 Series aircraft. The GMM is specifically applicable to 10 or more passenger aircraft.

TransNorthern utilizes a General Operations Manual (GOM) prepared in accordance with §135.23 that contains information applicable to all employees, its GMM is specific to company procedures and policies applicable to maintenance activities for the 10 or more-passenger aircraft.

This CAMP inspection document is applicable only to the aircraft listed on the cover page and each header of this document.

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Highlights of Changes

Replacement of the affected pages will provide a complete and up-to-date manual. Change bars have been included in the revised text to aid the user in identifying any changes as a result of this revision. This sheet summarizes those changes to the manual.

Revision 1

- Page Reg 1: Clarified that STC'd 9 or Less passenger aircraft are included in this CAMP.
- Removed Redundant pages Page SUM.1 and ROR.1 and inserted this page.
- Page 1.6, CH 1.6 –
 - Clarified that this CAMP is not **required** to be modified by the Operator whenever there is a change to any OEM manual. Service Bulletin information should be reviewed by the CASS department and determined if the company desires to add them to this program. All AD notes effecting servicing or life limitation requirement ARE required to be included in this program.
 - Added reference to utilization of Current Honeywell Service Bulletin to Generate Tasks sheets for the Servicing and Limitations for Engine Components that may be out dated in this document at the Discretion of the DOM.
 - Added reference to utilization of the Procedures and Service Limitations for lead acid batteries found in the Concorde RG-390E/H Series Main Aircraft Battery Component Maintenance Manual Rev B dated 2-27-2017 or current version in lieu of the potentially outdated Tasks described on Page 3.3 of this document at the discretion of the DOM.
- Miscellaneous typos and grammar corrections that do not change meaning or interpretation of this document.

Revision 2

- Page 3.9: Removed reference to 24 Month "Preform Compass Swing" task. (maintained other Compass inspections found on form 504 (Avionics Inspection) and 604 (Heavy Flight Compartment Inspection))

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FAA Acceptance

CH 1: Manual Overview

CH 1.1 Purpose

This manual constitutes a phase inspection program used by TransNorthern Aviation, Inc. as part of a continuous aircraft maintenance program for SA227 series aircraft in accordance with 14 CFR Part 135.411(a)(2). The details of the program were developed using the SA227 Phase & Letter Check Inspection Manual, SA227 Aircraft Airworthiness Limitations Manual, Garrett/Honeywell Maintenance Manual, MT Propeller Maintenance Manual and Dowty Maintenance Manual. Engines will be maintained in accordance with the Honeywell 7000 Hour Overhaul/CAM Program. Engine Time Limitations have been compiled from Honeywell Service Bulletins TPE331-72-0180, TPE331-72-0117 and TPE331-72-0019. Life limits are listed in Section 2.19.

CH 1.2 Scope

This manual provides an inspection program outline, inspection schedules, inspection checklists, forms, and procedures. Specific maintenance practices and procedures are excluded from this manual intentionally so as to separate the inspection program from other activities. Separate manuals are provided for maintenance, overhaul, and operating procedures.

CH 1.3 Organization

This manual is divided into the following sections:

Chapter 1 – Introduction
Chapter 2 –Airworthiness Limitations
Chapter 3 – Out of Phase Inspections
Chapter 4 – Inspection Form Listing/Matrix and Inspection Forms
Chapter 5 – Supplemental Inspection Program and Forms

CH 1.4 Abbreviations

A

A/C	AIRCRAFT
AC	ADVISORY CIRCULAR
ACO	AIRCRAFT CERTIFICATION OFFICE
AD	AIRWORTHINESS DIRECTIVE
ADF	AUTOMATIC DIRECTION FINDING
ADP	AUTOMATIC DATA PROCESSING
AEG	AIRCRAFT EVALUATION GROUP
AEP	AGE EXPLORATION PROGRAM
AFT	AFT
AHRS	ATTITUDE AND HEADING REFERENCE SYSTEM
ALD	AIRWORTHINESS LIMITATION DOCUMENT
ALI	AIRWORTHINESS LIMITATION ITEM
AMM	AIRCRAFT MAINTENANCE MANUAL
ATA	AIRCRAFT TRANSPORT ASSOCIATION
ATC	AIR TRAFFIC CONTROL

B

BO	BORESCOPE
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C

CA	CRITICAL ANALYSIS
CA	CALENDAR
CAA	CIVIL AVIATION AUTHORITY
CAC	CREW ALERTING COMPUTER
CDL	CONFIGURATION DEVIATION LIST
CL	CONDITION LEVER

	CMM	COMPONENT MAINTENANCE MANUAL
	CMP	CONTINUOUS MAINTENANCE PROGRAM
	CMR	CERTIFICATION MAINTENANCE REQUIREMENT
	CAT	CATEGORY
	CPCP	CORROSION PREVENTION CONTROL PROGRAM
	CVR	COCKPIT VOICE RECORDER
D		
	DC	DIRECT CURRENT
	DI	DETAILED INSPECTION
	DME	DISTANCE MEASURING EQUIPMENT
	DPI	DYE PENETRANT INSPECTION
	DS	DISCARD
	DT	DAMAGE TOLERANCE
E		
	EC	EDDY CURRENT
	ED	ENVIRONMENTAL DETERIORATION
	EFCV	EJECTOR FLOW CONTROL VALVE
	ELT	EMERGENCY LOCATOR TRANSMITTER
	EMM	ENGINE MAINTENANCE MANUAL
	ENG	
	CYC	ENGINE CYCLES
	E/POV	ELECTRO-PNEUMATIC OUTFLOW VALVE
	EPSU	EMERGENCY POWER SUPPLY UNIT
	ERL	ECONOMIC REPAIR LIFE
	EQS	ELECTRICAL WIRING INTERCONNECTION SYSTEM
F		
	FAA	FEDERAL AVIATION ADMINISTRATION
	FAR	FEDERAL AVIATION REGULATION
	FC	FLIGHT CYCLE
	FC	FUNCTIONAL CHECK
	FD	FATIGUE DAMAGE
	FDR	FLIGHT DATA RECORDER
	FH	FLIGHT HOUR
	FI	FLIGHT IDLE
	FL	FLIGHT(S)
	FL	FLIGHT LEVEL
	FLP	FLEET LEADER PROGRAM
	FMEA	FAILURE MODE AND EFFECTS
	FMECA	FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS
	FR	FRAME
	FT	FOOT/FEET
	FWD	FORWARD
G		
	GPS	GLOBAL POSITIONING SYSTEM
	GPW	GROUND PROXIMITY WARNING
	GPWS	GROUND PROXIMITY WARNING SYSTEM
	GSE	GROUND SUPPORT EQUIPMENT
	GVI	GENERAL VISUAL INSPECTION

H

HF	HIGH FREQUENCY
HIRF	HIGH INTENSITY RADIATED FIELDS
HP	HIGH PRESSURE
HSI	HOT SECTION INSPECTION

I

IN	INSPECTION
IRS	INERTIA REFERENCE SYSTEM
ISC	INDUSTRY STEERING COMMITTEE

L

LCF	LOW CYCLE FATIGUE
LH	LEFT HAND
LOC	LOCATOR
LP	LIQUID PENETRANT
LP	LOW PRESSURE
LRU	LINE REPLACEMENT UNIT
LSA	LOGISTIC SUPPORT ANALYSIS
LU	LUBRICATION

M

MEL	MINIMUM EQUIPMENT LIST
MII	MAJOR INSPECTION INTERVAL
MLG	MAIN LANDING GEAR
MLS	MICROWAVE LANDING GEAR
MMEL	MASTER MINIMUM EQUIPMENT LIST
MMH/FH	MAINTENANCE MAN HOURS/FLIGHT HOURS
MP	MAGNETIC PARTICLE
MPD	MAINTENANCE PLANNING DOCUMENT
	MAINTENANCE PROGRAM DEVELOPMENT
MPDH	HANDBOOK
MPI	MAGNETIC PARTICLE INSPECTION
MPI	MAJOR PERIODIC INSPECTION
MPP	MAINTENANCE PROGRAM PROPOSAL
MR	MANUFACTURER RECOMMENDATION
MRB	MAINTENANCE REVIEW BOARD
MRB/EWIS	ELECTRICAL WIRING INTECONNECTION SYSTEM
MSC	MAINTENANCE STEERING COMMITTEE
MSG-3	MAINTENANCE STEERING GROUP- 3RD FORCE
MSI	MAINTENANCE SIGNIFICANT ITEM
MTA	MAINTENANCE TASK ANALYSIS
MTBF	MEAN TIME BETWEEN FAILURE
MTD	MAINTENANCE TASK DESCRIPTION
MTH	MONTH(S)
MWG	MAINTENANCE WORKING GROUP

N

NAA	NATIONAL AVIATION AUTHORITY
NDMT	NON-DELETABLE MAINTENANCE TASKS
NDT	NON-DESTRUCTIVE TEST
NH	HIGH PRESSURE COMPRESSOR SPEED
NL	LOW PRESSURE COMPRESSOR SPEED
NLG	NOSE LANDING GEAR
NP	PROPELLER SPEED

	NR	NATIONAL REQUIREMENT
	NRV	NON-RETURN VALVE
O		
	OC	OPERATIONAL CHECK
	OI	OPPORTUNITY INSPECTION
	OXY	OXYGEN
P		
	PIN	PART IDENTIFICATION NUMBER
	PL	POWER LEVER
	PMP	PRIMARY MAINTENANCE PROCESS
	PN	PART NUMBER
	POV	PNEUMATIC OVERFLOW VALVE
	PPH	POLICY AND PROCEDURE HANDBOOK
	PPC	PROPELLER PITCH CONTROL
	PR+R	PRESSURE REGULAOR AND RELIEF VALVE
	PSEU	PROXIMITY SWITCH ELECTRONIC UNIT
	PSU	PASSENGER SERVICE UNIT
	PT	POWER TURBINE
Q		
	QPA	QUANTITY PER AIRCRAFT
	QTY	QUANTITY
R		
	R	RATING
	RH	RIGHT HAND
	RPM	REVOLUTIONS PER MINUTE
	RS	RESTORATION
	REF	REFERENCE
	REV	REVISION
S		
	SB	SERVICE BULLETIN
	SDI	SPECIAL DETAILED INSPECTION
	SIP	STRUCTURES INSPECTION PROGRAM
	SL	SAFE LIFE
	SMP	STANDARD MAINTENANCE PROGRAM
	SSI	STRUCTURAL SIGNIFICANT ITEM
	STA	STATION
	STBY	STANDBY
	SV	SERVICING
T		
	TBD	TO BE DETERMINED
	TBO	TIME BETWEEN OVERHAULS
	TC	TIRE CHANGE
	TCAS	TRAFFIC CONTROL ALERTING SYSTEM
	TCS	TOUCH CONTROL STEERING
Y		
	YRS	YEARS

CH 1.5 Definitions

DEFINITIONS	
ACCIDENTAL DAMAGE	Physical deterioration of an item caused by contact or impact with an object or influence which is not a part of the aircraft, or by human error during manufacturing, operation of the aircraft or maintenance practices.
DAMAGE TOLERANT	A qualification standard for aircraft structure. An item is judged to be damage tolerant if it can sustain damage and the remaining structure can withstand reasonable loads without structural failure or excessive structural deformation until the damage is detected.
DETAILED INSPECTION	An intensive visual examination of a specified detail, assembly or installation. It searches for evidence of damage or irregularity using adequate lighting and, where necessary, inspection aids such as mirrors, hand lens, etc. Surface cleaning and elaborate access procedures may be required.
FAILURE EFFECT	The result of a functional failure.
FLIGHT	See FLIGHT CYCLE
FLIGHT CYCLE	A completed take-off and landing sequence.
FLIGHT HOUR	Time from take-off to landing.
FUNCTION	The normal characteristic actions of an item.
FUNCTIONAL CHECK	A quantitative check to determine if one or more functions of an item perform within specified limits.
FUNCTIONAL FAILURE	How an item failed to perform its function.
GENERAL VISUAL INSPECTION	A visual examination that will detect obvious unsatisfactory conditions/discrepancies. This type of inspection may require removal of fillets, fairings, access panels/doors, etc. work stands, ladders etc. may be required to gain proximity.
HIDDEN FUNCTION	1. A function which is normally active and whose cessation will not be evident to the operating crew during performance of normal duties. 2. A function which is normally inactive and whose readiness to perform, prior to its being needed, will not be evident to the operating crew during performance of normal duties.
INSPECTION	An examination of an item against a specific standard.
ITEM	Any level of hardware assembly (i.e., system, sub-system, module accessory, component, unit, part, etc.).
LUBRICATION & SERVICING	Any act of lubricating or servicing an item for the purpose of maintaining its inherent design operating capabilities.
MAINTENANCE SIGNIFICANT ITEMS (MSI)	Items whose failure: a. Could affect safety (ground or flight), and/or b. Could be undetectable or is not likely to be detected during operations, and/or c. Could have significant operational impact, and/or d) Could have significant economic impact.
MSG-3	Airline/Manufacturer maintenance program development document prepared by ATA Maintenance Steering Group task force 3. This MSG-3 analysis procedure presents a means for developing a maintenance program, outlining the general organization and decision processes for determining scheduled maintenance requirements.
OPERATIONAL CHECK	A task to determine that an item is fulfilling its intended purpose. Does not require quantitative tolerances. This is a failure finding task.

DEFINITIONS	
OPPORTUNITY INSPECTION	An inspection carried out on an item to determine the extent of age-related wear and discover defects undetectable by on-wing inspections. This type of inspection should be carried out on the basis of OPPORTUNITY when the affected item is removed for other reasons. The inspection consists of visual/dimensional checks which can involve disassembly, cleaning, assembly and test procedures.
OTHER STRUCTURE	Structure which is judged as not being a Structural Significant Item. "Other Structure" is defined both externally and internally within zonal boundaries.
RESTORATION	That work necessary to return the item to a specific standard. Restoration may vary from cleaning or replacement of single parts up to a complete overhaul.
SAFE LIFE STRUCTURE	Structure which is not practical to design or qualify as damage-tolerant: Its reliability is protected by discard limits which remove items from service before fatigue cracking is expected.
SPECIAL DETAILED INSPECTION	An intensive examination of a specific location similar to the detailed inspection except for the following differences. The examination requires some special technique such as non-destructive test techniques, dye penetrant, high-powered magnification, etc., and may require disassembly procedures.
STRUCTURAL SIGNIFICANT ITEM (SSI)	Any detail, element, or assembly which contributes significantly to carrying flight, ground, pressure or control loads and whose failure could affect the structural integrity necessary for the safety of the aircraft.
THRESHOLD	The initial accomplishment of a specific maintenance task expressed in flight cycle, flight hours, and/or calendar time.

CH 1.6 Manual Management

TNA will specifically revise its CAMP when:

- It identifies deficiencies,
- It makes significant changes to its work scope or has plans to make such changes as revisions.
- This program is based on the SA227 Phase & Letter Check Inspection Manual, SA227 Aircraft Airworthiness Limitations Manual, Garrett/Honeywell Maintenance Manual, MT Propeller Maintenance Manual and Dowty Maintenance Manual.
- Honeywell Service Bulletin TPE331-72-0180 Rev 42 or current version when work is accomplished may be utilized in lieu of the Tasks described in this document for Engine Component Service Life and Periodic Maintenance in cases of unlisted components at the discretion of the DOM. When utilizing the SB there a notation will be made on the Task Sheet describing the change and reason.
- TNA has determined that the Concorde RG-390E/H Series Main Aircraft Battery Component Maintenance Manual Rev B dated 2-27-2017 or current version contains the most current battery maintenance and servicing the SA227 Batteries. Testing, Cleaning, Checking, Repair and Disposal Task sheets MAY be generated from this document in lieu of the limitations and Servicing tasks listed in this document at the discretion of the DOM.
- The Director of Maintenance may direct changes to be made to this document and is responsible for ensuring revisions are submitted to the FAA for approval. Records Manager is responsible to publish revisions as soon as they are Approved. (Ref: Page 3.3 – Battery Life and Capacitance Check)

CH 1.7 Content

- Unless the content requires otherwise:
- Words using the singular include the plural, Words using the plural include the singular,
- Words using the masculine gender include the feminine,
- Shall is used in a permissive sense to state authority or permission to do the act prescribed, and the words "no person may***" or "a person may not ***" mean that no person is required, authorized, or permitted to do the act prescribed,
- Includes means "includes but is not limited to"
- TransNorthern Aviation is referred to as the "Company" or "TNA", Cockpit is referred to as the flight deck, and, "Principal Operations Base" refers to the headquarter facilities at Anchorage, AK.

CH 1.8 Note, Caution, and Warning

Notes, Cautions, and Warnings are used throughout this manual to focus attention on special considerations, conditions, practices, and procedures.

	NOTE: A note is used to highlight special considerations, conditions, practices, and procedures.
	CAUTION: A caution is used to call attention to policies or procedures that, if not strictly observed, could result in damage to equipment.
	WARNING: A warning is used to call attention to policies or procedures that, if not strictly observed, could result in injury or loss of life.

CH 1.9 Personnel Names and Titles used in the Company Operations

May not be the same as those referenced in the CFRs and various FAA reference documents. For clarity, the following applies:

OUR TITLE OR NAME	MEANS
Director of Maintenance	Director of Maintenance (DOM)
Chief Inspector	Chief Inspector (CI)
Maintenance Technician	Mechanic

CH 1.10 Manual Distribution and Revision

A digital copy of this manual is available to all Company and contract maintenance personnel via the company intranet. In special circumstances where this manual is not available via company intranet, the company will make appropriate portions available via hardcopy. After use in such circumstances, the hard copies must be destroyed to eliminate the potential for versioning issues. Copies of this manual that are printed via the company intranet, or any other electronic media, are uncontrolled copies.

The company employee website t can be accessed from the link below:

<https://www.tnaemp.com/>

DISTRIBUTED TO	FORMAT
ANC FSDO	E mail

CH 1.10.1 Local Printing

Users are authorized to print this manual locally; however, in doing so, the Company considers locally printed pages as an "uncontrolled copy". Users are held responsible for printing and using a locally printed "uncontrolled copy". Each user is responsible for destroying out-of-date revision summaries and pages. Out-of-date pages should be irretrievably destroyed by shredding, cutting, tearing, or another form of destruction, ensuring that the information cannot be successfully pieced together.

CH 1.10.2 Manual Revisions

Each revision proposal is prepared by TNA and submitted to the FAA. This proposal will contain a cover letter describing the changes, a disc with the revised manual, and a receipt of revision form. The Administrator will authorize the initial use of this program through the issuance of the OpSpecs.

Except for new issues and reissues, each revision will have a date and revision number assigned to it, (i.e., Revision 4, 2016-03-30). New issues will have "Original" as the revision number and Reissues are numbered "Reissue".

A solid vertical "change bar" will be placed in the page margin beside affected changes.

Suggestions for revisions to this manual should be submitted in writing to the MOQ. Suggested changes may be submitted using a format that is consolidated for company operations and allows for suggestions to be submitted to CASS for consideration.

CH 1.10.3 Revision Amendments

When a revision occurs, a revision number is assigned to the revised pages and listed on the "Record of Revisions" page.

The revision date, number, and number of each page are changed in the Header to reflect the most current information prior to submission for approval.

Multiple changes may be included within the revision. If there are significant changes to the manual, a narrative of the changes accompanies the revision.

A bar is placed on the left-hand side of paragraph to show how a change is indicated.

CH 1.11 Inspection Intervals

The entire maintenance and inspection program for the SA227 aircraft consists of the following inspections and associated accountability cards:

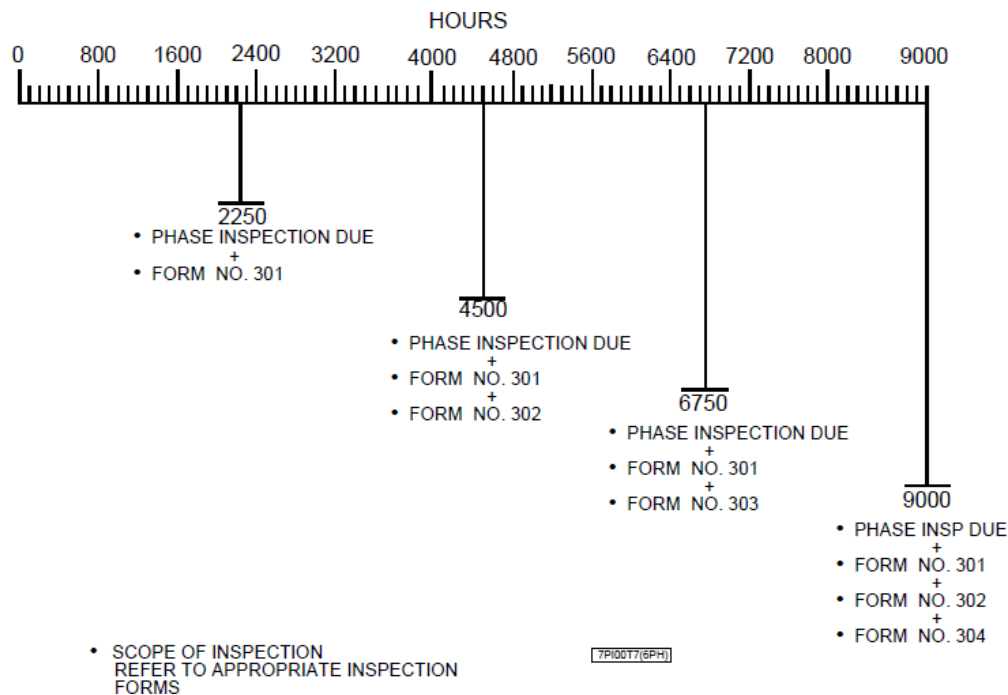
INSPECTION	INTERVAL
Service check	40-60 FH after a completion of a phase inspection
Phase 1	100 FH +/- 10 FH
Phase 2	100 FH +/- 10 FH after the completion of Phase 1
Phase 3	100 FH +/- 10 FH after the completion of Phase 2
Phase 4	100 FH +/- 10 FH after the completion of Phase 3
Phase 5	100 FH +/- 10 FH after the completion of Phase 4
Phase 6	100 FH +/- 10 FH after the completion of Phase 5
Phase 7	100 FH +/- 10 FH after the completion of Phase 6
Phase 8	100 FH +/- 10 FH after the completion of Phase 7
Basic Block Inspection	2250 FH
1st Intermediate Block Inspection	4500 FH
2nd Intermediate Block Inspection	6750 FH
Final Block Inspection	9000 FH
Mechanic's Pre-Flight	Completed after Phase and multi-visit Phase when Inspection is not completed and released for dispatch
Post Inspection Engine Run Checklist	Completed after Phase inspection
Post Rigging Engine Run Checklist	Completed after engine rigging, or discrepancies are noted

CH 1.12 Interval Definitions

- **SERVICE CHECK**— Inspections performed at intervals occurring midway between the eight phase inspections. The interval for service checks is between forty (40) to sixty (60) hours after the completion of a Phase Inspection.
- **PHASE**— Major inspection intervals of specific zones. The designated interval between each phase is 100 hours with a "window of compliance" of ten (10) hours or nine (9) Days (Refer to the Short-Term Escalation Section for an explanation of the "window of compliance"). Two options exist for the completion of a Phase Inspection.
 - a. The complete Phase inspection may be accomplished in one visit, and returned to service at the completion in accordance with this Program's and TNA's procedures.
 - b. The Phase may be accomplished over the course of several visits and returned to service for dispatch following the completion of individual Forms. This program contains procedures to ensure the airworthiness and reassembly between multiple visits provided the following conditions are met:
 - i. Each Form or Area that is commenced must be completed in entirety before the aircraft is released for dispatch.
 - ii. If a Form 614 or Form 615 Engine Inspection is accomplished a Form 502 Post Inspection Engine Run must also be accomplished before the aircraft is released for dispatch.
 - iii. A Form 501 Mechanics Pre-Flight must be accomplished after each visit before the aircraft is released for dispatch.
 - iv. The complete inspection must be completed within the guidelines of the "window of compliance".
 - v. At the completion of the Phase the aircraft will be returned to service in accordance with this Program's and TNA's procedures.
- **CYCLE**—One completed set of phase inspections (Phase 1 through Phase 8) in which all zones are inspected in a detailed manner at least once each 800 hours.
- **DETAILED and ROUTINE INSPECTIONS**— In the course of each 800-hour cycle, each zone and its components are scheduled for inspection at least one detailed and one routine inspection. Certain zones require detailed as well as routine inspections at more frequent intervals than once in the 800-hour cycle and are listed in more than one phase inspection. For example, detailed inspection of the engines is specified in phases 2, 4, 6 and 8.

- SPECIAL INSPECTIONS**— Four inspections distributed over a 9,000-hour period in 2,250-hour segments (Basic Block, 1st Intermediate Block, 2nd Intermediate Block, and Final Block Inspection.) Any of the above-mentioned checks and inspections may be performed in conjunction with another check or inspection for ease of scheduling as long as the time limit for such inspection is not exceeded. In accomplishing any Inspection, TNA, at their discretion, may do any Task listed in this document individually, in combination with other Tasks or as a complete package, provided the interval specified for the Inspection is not exceeded. When an Inspection is begun, a discrepancy will be entered in the TNA M Discrepancy Log, or approved repair station's form, stating that that Inspection is due and list the date, time or cycles when the inspection is due. When Tasks are accomplished individually, each Task will be signed off in the Inspection Package by the mechanic accomplishing that task. Each Task, once started, must be completed before releasing the aircraft for service. Once all of the Tasks have been completed for that Inspection Package, the Technician will complete the Signature page on the last page of that Inspection Package, sign-off the Discrepancy Log or approved repair station's form entry for the Inspection using the date the Inspection was completed, and an Airworthiness Release for that Inspection in the Aircraft Log Book per TNA's Manuals instructions.

Refer to the table below for the Block Inspection Schedule:



CH 1.13 Short Term Escalations – Basic Inspection Schedule

It is allowable to exceed any of the inspection periods by no more than 10% of the stated interval. An exception to this, to provide some flexibility for scheduling and signing off inspections is a "window of compliance" detailed as follows.

If the maximum allowed 10% excess is used, the next inspection is due 90% of the interval from the completion of the Inspection. Example: Phase 1 completed at 110 hours; Phase 2 is due at 90 after the completion of Phase 1.

If an inspection is completed a maximum 10% of the stated interval early, the next inspection due time is calculated as 100% of the stated interval from the due time/date of the last inspection. Example: Phase 1 completed at 90 hours; Phase 2 is due at 110 hours after the completion of Phase 1.

If an inspection is completed more than 10% of the stated interval early, the next inspection due time is calculated as 100% of the interval from the completion of the last inspection. Example: Phase 1 is completed at 85 hours; Phase 2 is then due at 100 hours after the completion of Phase 1.

CH 1.14 General Rules

The inspection period and overhaul times shown in this document, other than the special maintenance requirements published in the airworthiness limitations section of the manufacturer's manual or referenced in the Type Data Sheet, may be escalated in accordance with accepted Federal Aviation Administration practices.

An inspection of the adjacent area will be accomplished whenever other scheduled maintenance is specified, such as when cable, zonal, or structural inspections are made.

Items that are life-limited will be discarded according to the life limits published in the appropriate "Type Data Sheet" or as published in the airworthiness limitations section of the manufacturer MRB report. These limits may be revised per the Manufacturer's recommended guidelines, with approval of the regulatory authority.

Inspections, hydrostatic test, and life limits will be accomplished as set forth in CFR 49, Subpart B, Chapter 1 part 173 & 180 currently in effect. (i.e., 173.302a, 180.209) For foreign manufactured containers, inspect, restore, and test per Manufacturer's technical data currently in effect.

In addition to the basic intervals, usage parameters such as Flight Hours (FH), Flight Cycles (FC), Landings (LD), APU Hours (AH), Calendar Time (MTH, YR) and component replacement occasions, Vendor Recommendations or National Requirements are called for whenever appropriate. In some cases, further explanation of the above intervals needs to be outlined. The TNA CASS has developed the following Guideline for such occurrences.

- Years (YR, YRS) – The time in service from the 8130-3 date or the date the last maintenance action was accomplished. If the 8130-3 only lists a month and a year (i.e., 08/2017) the item will come due the 1st day of the month, unless specifically outlined differently within the task.
- Month (MTH) – The total months in service from the 8130-3 date or the date the last maintenance action was accomplished. If the 8130-3 only lists a month and a year (i.e., 08/2017) the item will come due the last day of the month, unless specifically outlined differently within the task.
- Monthly – Items listed as occurring monthly will only be performed once per calendar month. Annually – Items listed as performed annually will only be performed once per calendar Year.

The TNA CASS has reviewed all Tasks contained within the checks outlined within this manual and has determined whether the tasks meet TNA's stated Required Inspection Item (RII) Listing or Confirmation Check Requirements. The Check forms have RII and CC Tasks indicated on "RII or CC" Block of the respective tasks. Any Tasks with an "N/A" need not be Initialed. If a Mechanic and/or Inspector feel that an inspection task should be marked RII or CC and it is currently marked with an "N/A", they may override the N/A by marking a line through the N/A, Initialing the change and marking the task either CC or RII.

CH 1.15 Maintenance Task Designators

Any tasks listed within this manual that are separated with a " - " or " / " are the manufacturer's required tasks, pulled from the aircraft's respective inspection program manuals. (i.e., 5330/02 or 5330-02) Any task separated by a " . " are tasks in which TransNorthern Aviation has deemed required due to requirements from aircraft modifications, Instructions for Continued Airworthiness, and any maintenance task in which TNA requires for the aircraft. (i.e. 53.30.02 or 5330.02)

TransNorthern Aviation may also give a task a "L" or "R" Designation to differentiate a LH or RH side for Tracking purposes. This may be applied to manufacturers and TNA Tasks. (i.e., 5330/02 L)

TransNorthern Aviation will also indicate Airworthiness Limitation task for all aircraft using a " * " before or after the task number. (i.e., *5330/02, 5330/02*)

CH 1.16 Service Bulletins

Any service bulletins issued by original equipment manufacturers will be evaluated by the TNA CASS in accordance with the GMM for content and applicability to the SA227 aircraft. Results of that evaluation will determine the incorporation of any service bulletin and associated timetable that will then become part of the SA227 CAMP.

CH 2: Airworthiness Limitations

CH 2.1 Foreword

This chapter is divided into sections of the aircraft. Each section is illustrated to identify areas of inspection. Initial inspection intervals, in flight hours, and re-inspection intervals are listed as well. Types of inspections called for are categorized as:

V– Visual **P**– Dye Penetrant **M**– Mirror **E**– Eddy Current **X**– X-Ray **F**– Functional Check **R**– Recalibration

Personnel performing these inspections shall have training appropriate to the inspection type. All Airworthiness Limitations Inspections shall be performed by personnel trained in accordance with TNA's Training Program or FAA-approved Repair Station's manual requirements, and meet the minimum requirements specified in Fairchild's Structural Repair Manual Standard Practices – Non-Destructive Testing CH 51-30-07

All SID NDI inspections shall be performed by personnel who meet the General Requirements specified in Ch. 5.2.

CH 2.2 Airworthiness Limitations Note

For those that do not have eddy current capabilities, the following description of the recommended eddy current equipment is provided. The preferred eddy current instrument is an impedance plane eddy current inspection instrument similar to the NORTEC 23ST instrument. Other eddy current instruments and probes may be utilized provided that it can be demonstrated that the instrument and probe to be used is capable of detecting the cracks as described. The eddy current probes shall be at least equivalent in sensitivity to those recommended for each area to be inspected.

Each area where eddy current inspection is approved has a letter in parentheses identifying the eddy current probe recommended for use on that area. Section 2.3 lists the recommended type of probe. Where the use of an alternate probe is approved, the alternate probe is one that is designed for rapid scanning along the length of a series of fasteners thus providing for a significant reduction in the time required for the inspection. Wing spar inspection at B.L.9 based on NORTEC NDT-3 instrument, BP-16 shielded and non-shielded probes. Other eddy current instruments and probes may be utilized provided that it can be demonstrated that the instrument and probe to be used is capable of detecting the cracks as described. The eddy current probes shall be at least equivalent in sensitivity to those recommended for each area to be inspected.

CH 2.3 Applicable Type NDT test probes

- 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013. Note: This probe requires a separate cable.
- 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408. Note: This probe requires a separate cable (the same probe cable as above).
- 1 to 100 KHz sliding probe similar to the NORTEC sliding probe stock No. SPO3806. Note: This probe requires a separate cable.
- BP-16 shielded bolt hole probe (NORTEC), or equivalent.
- BP-16 non-shielded bolt hole probe (NORTEC), or equivalent.

CH 2.4 Airframe Airworthiness Limitations Table Format

The Airframe Airworthiness Limitations inspection tasks are tabulated in the following format:

A						
TASK NO.	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
B	C	D	E	F	G	H

- A. Area of Airframe Airworthiness Limitation Table is applicable.
 B. **TASK NO.** – Task number from the Structural Inspection Program.
 C. **DESCRIPTION** – Brief description of the task to be done.
 D. **FIGURE** – Figure in the manual that applies to the task to be performed.
 E. **INSPECTION METHOD** – The inspection method(s) that should be used to perform the inspection.
 F. **THRESHOLD** – Threshold. The maximum number of flights since new at which the first inspection should be carried out.
 G. **RECURRENT** – The maximum interval between inspections once the aircraft has reached the Threshold.
 H. **LIFE LIMIT** – The Maximum number of Flight Hours or Cycles on the part before required replacement.

CH 2.5 Cargo Door SA227-AC, AT, and BC Only

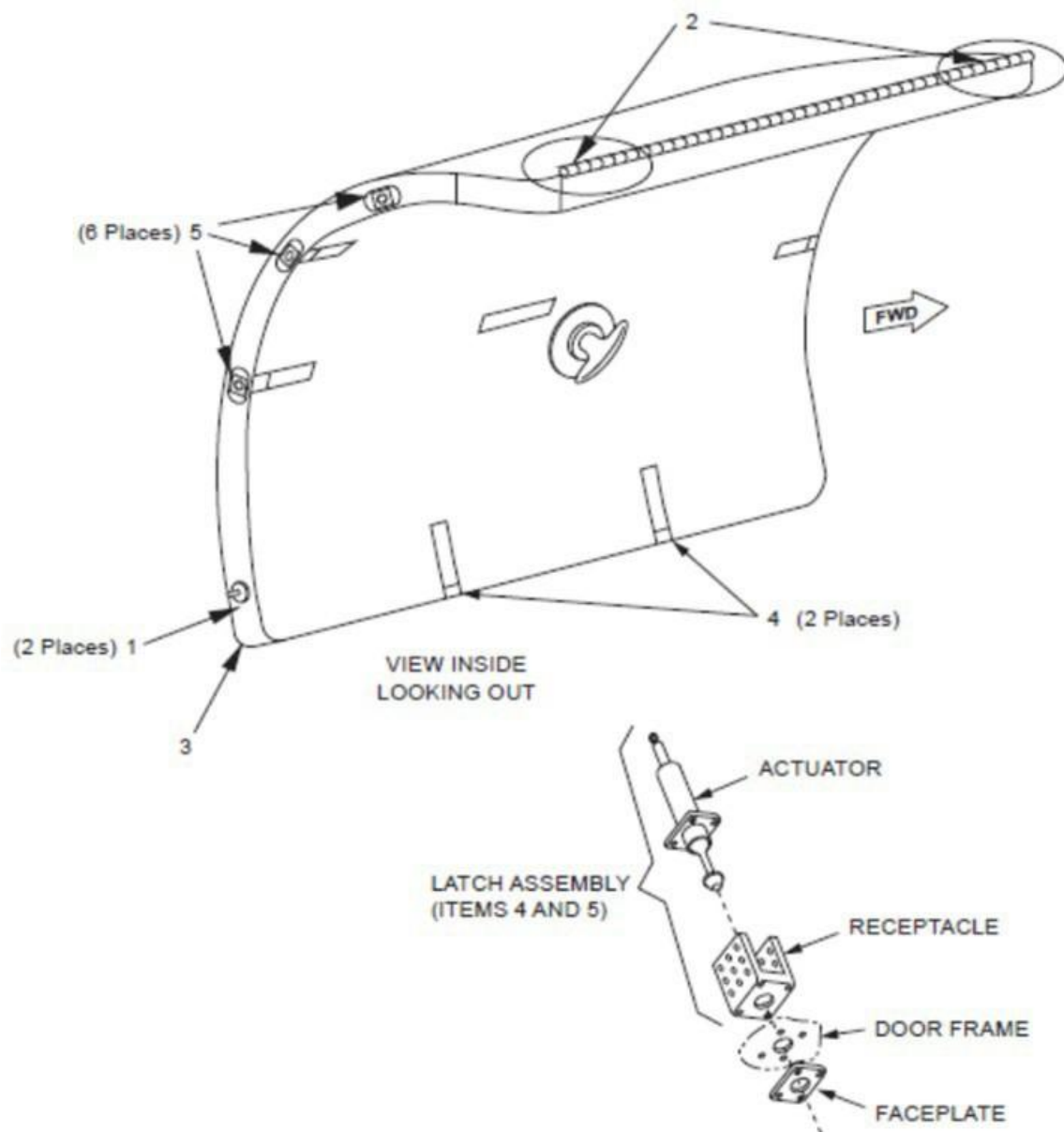


Figure 1

CARGO DOOR						
APPLIES ONLY TO SA227AC, AT AND BC AIRCRAFT ONLY.						
TASK NO.	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*52.00.05	S.I. 1-1 Inspect Fwd and AFT, LWR end of Cargo Door, near bayonet pins. Check Frames for Cracks	1A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	1900 FH 3500 FH for Note 1	1000 FH	N/A
*52.00.06	S.I. 1-2 Inspect FWD and AFT upper Cargo door corners of skin, along hinge attachment for cracks at rivets	1B	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B & C Probes	15000 FH	2000 FH	N/A
*52.00.07	S.I. 1-3 Inspect LWR AFT corner of Cargo door outer skin cracks at rivets	N/A	Visual	9500 FH	1000 FH	N/A
*52.00.08	S.I. 1-4 Replace Cargo Door LWR Latch Assembly. See Note 2.	N/A	N/A	N/A	N/A	3000 FH for SA227AT 10000 FH for SA227AC, BC
*52.00.09	S.I. 1-5 Inspection of Cargo door Click-Clack engagement, Faceplates, receptacles adjustment, Receptacle and door warning system IAW TNA Task Card S.I. 1-5	1C, 1D, 1E, 1F, 1G	Visual	1200 FH	1200 FH	N/A
NOTE 1: This threshold is effective for S/N 481 and up. NOTE 2: Door latch assemblies consist of an actuator and a receptacle. Retirement life applies only to the actuators at the lower two latch assemblies on cargo door (Hartwell P/N's H931 and H2949, and M7 P/N's 27-24135 and 27-24151).						

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408.

Note: This probe requires a separate cable (the same probe cable as above).

Type C Probe: 1 to 100 KHz sliding probe similar to the NORTEC sliding probe stock No. SPO3806.

Note: This probe requires a separate cable.

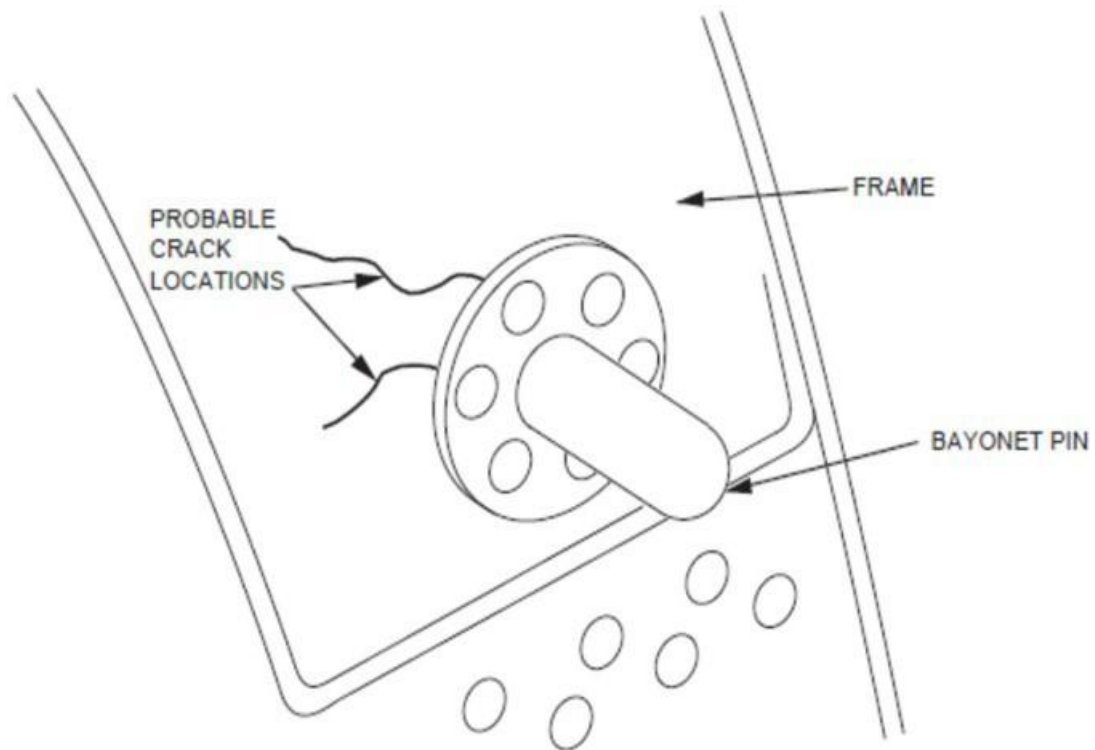


Figure 1A

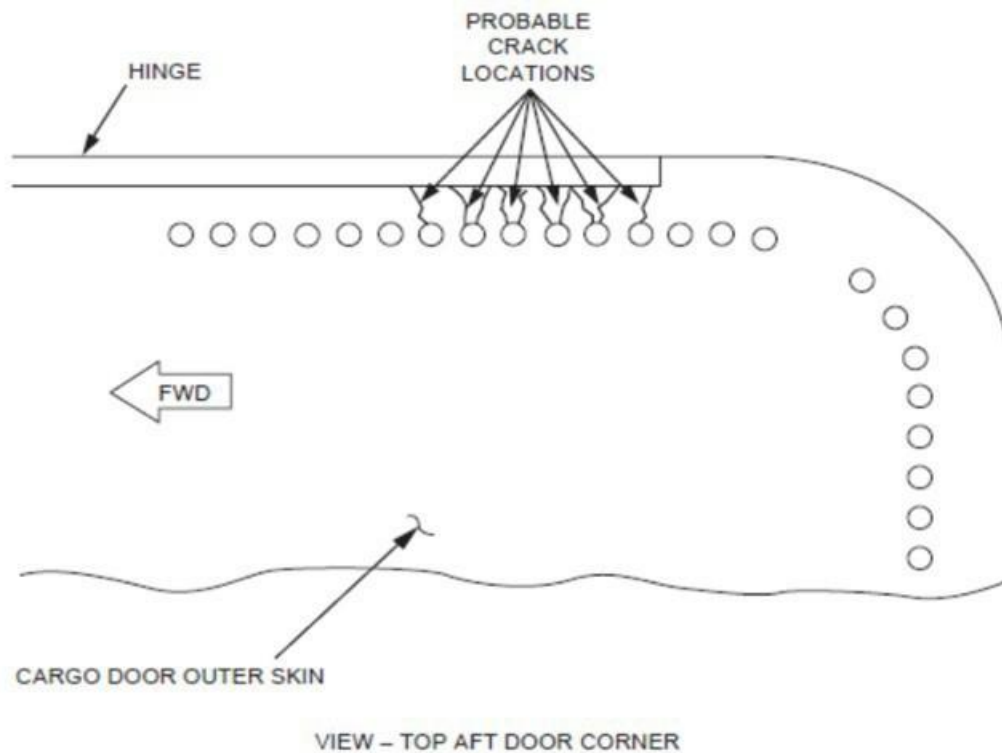


Figure 1B

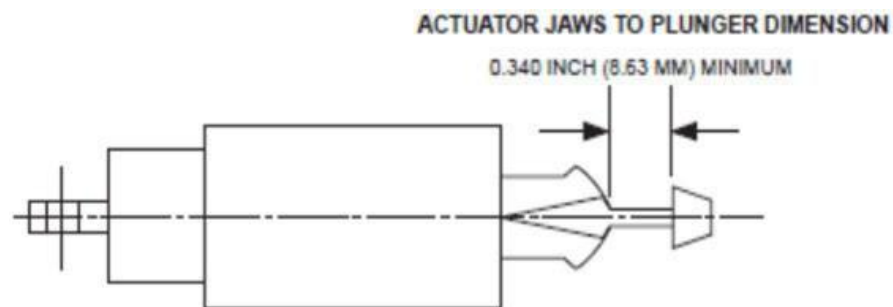


Figure 1C

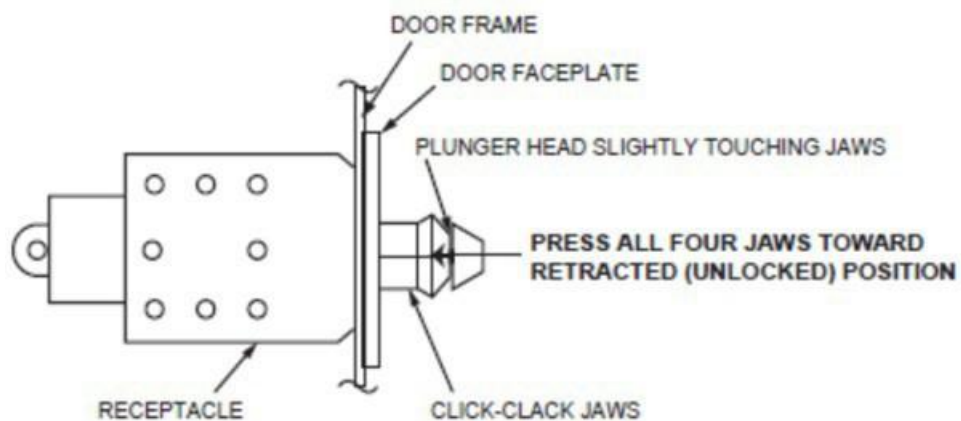


ILLUSTRATION 1D

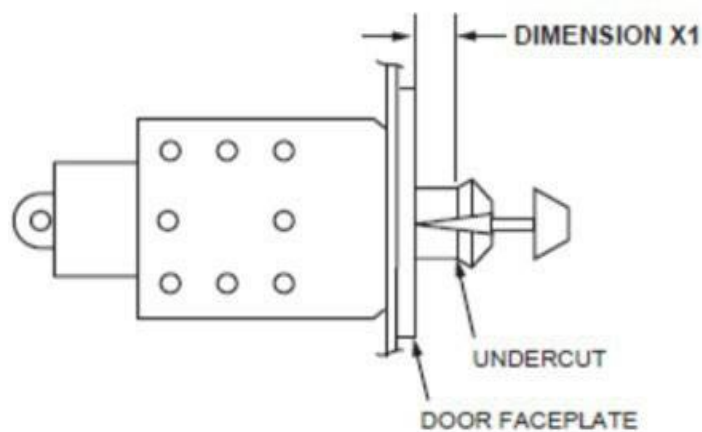


Figure 1E

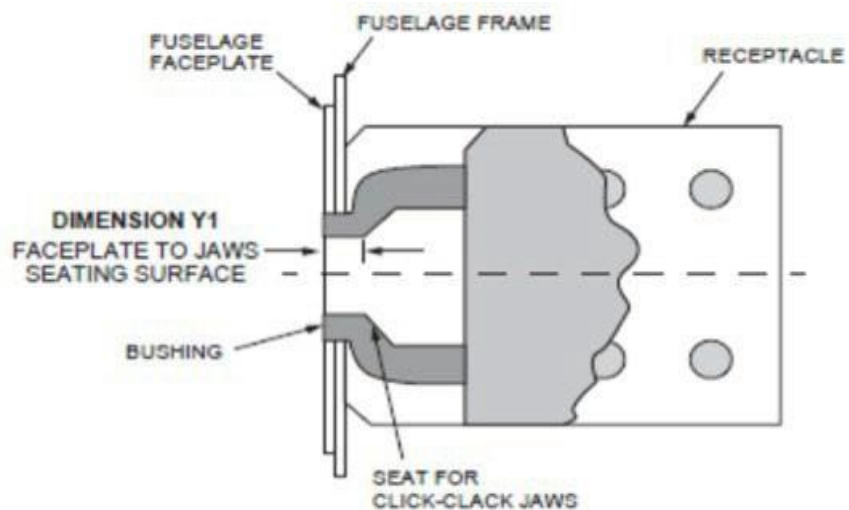


Figure 1F

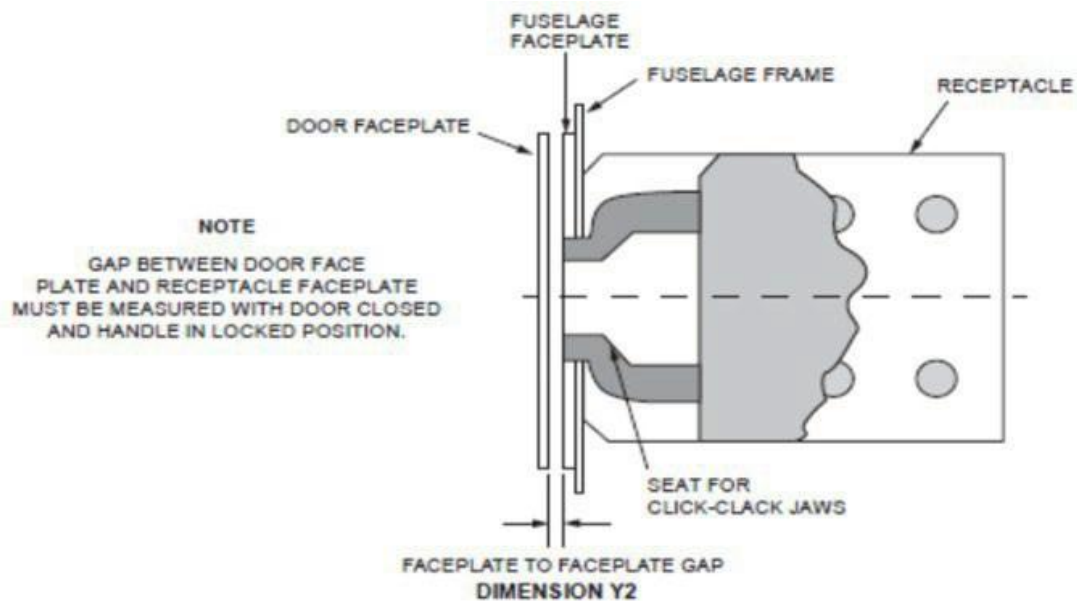


Figure 1G

CH 2.6 Cargo Door Frame

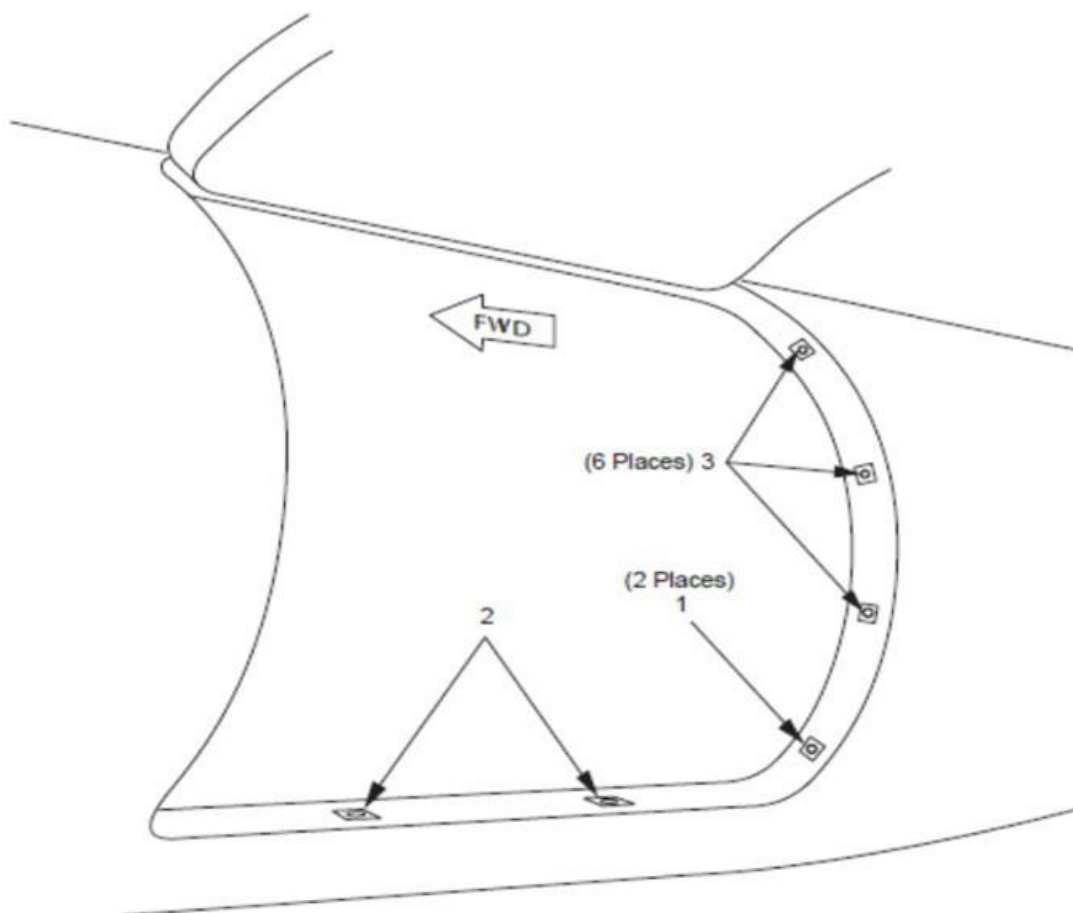
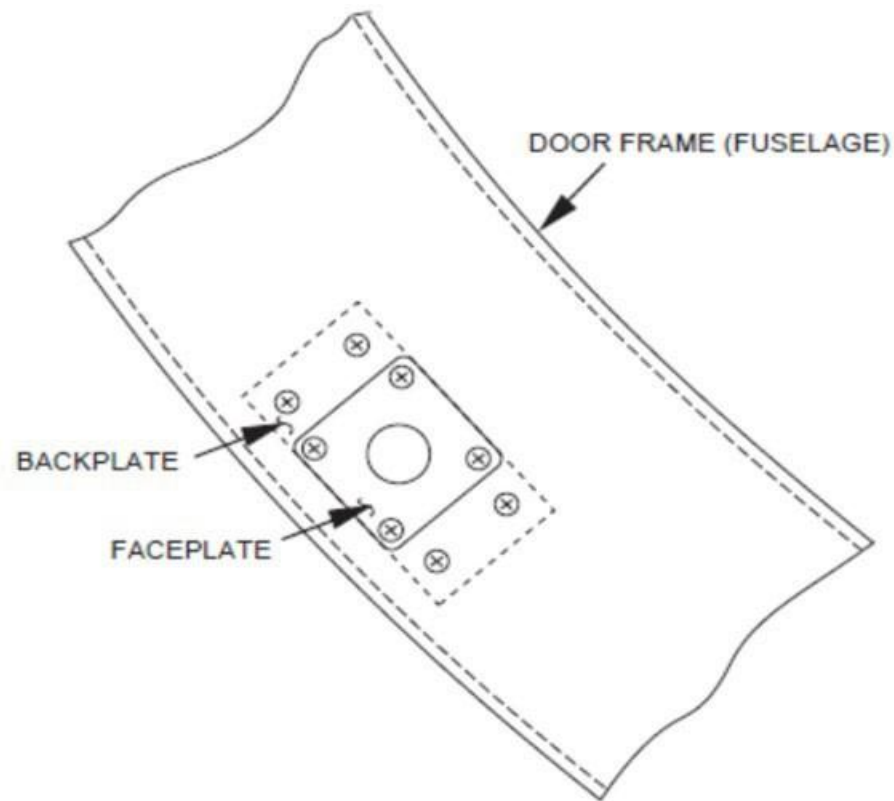


Figure 2

CARGO DOOR FRAME						
Applies only to SA227AC, AT and BC Aircraft Only.						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*52.00.10	S.I. 2-1-1 Inspect LWR corners of Cargo door frame where bayonet pins insert. Check faceplates and back plates for elongation.	2A	Visual	23000 FH	2000 FH	N/A
*52.00.11	S.I. 2-1-2 Check for cracks around screws attaching faceplates and receptacles	2A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	6500 FH	2000 FH	N/A
*52.00.12	S.I. 2-1-3 Check under faceplates for warping or other damage of the door sill.	2A	Visual	23000 FH	2000 FH	N/A
*52.00.13	S.I. 2-2-1 Check for cracks in door sill around both LWR latch faceplates	N/A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	6500 FH	1000 FH	N/A
*52.00.14	S.I. 2-2-2 Inspect each door face plate and receptacle face plate for evidence of deformation. If deformed, also inspect door frame and door latch assembly for evidence of cracks or deformation. If such defects are detected, replace with airworthy part(s). IAW TNA Task Card S.I. 2-2-2	1F, 1G	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	23000 FH	1000 FH	N/A
*52.00.15	S.I. 2-2-3 Check for broken screws securing faceplates	N/A	Visual	6500 FH	1000 FH	N/A
*52.00.16	S.I. 2-3 Check FWD and AFT click-clack bushing receptacles for cracks IAW TNA Task Card S.I. 2-3	1F, 1G	Visual	300 FH NOTE 1	1200 FH	N/A
NOTE 1: Within 300 hours' time in service (TIS) from the receipt of Service Letter 227-SL-043. Re-inspect every 1200 hours TIS thereafter.						

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408. Note: This probe requires a separate cable (the same probe cable as above).



VIEW LOOKING FORWARD F.S. 438.060
VIEW LOOKING AFT F.S. 491.060

Figure 2A

CH 2.7 Cabin Door/Door Frame Area

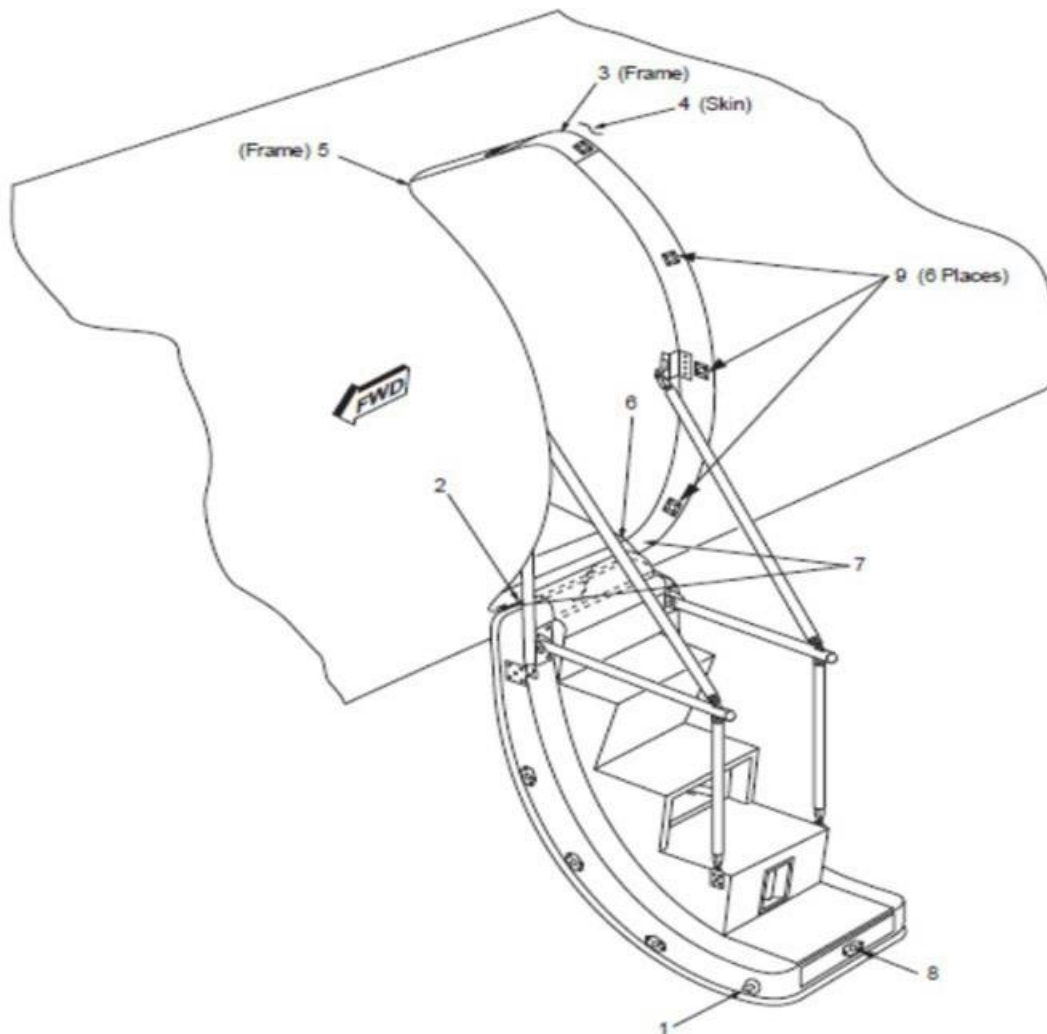


Figure 3

CABIN DOOR / FRAME AREA						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*52.10.01	S.I 3-1 Inspect Upper FWD door corner near bayonet pin for cracks.	3A	Visual	13000 FH	1000 FH	N/A
*52.10.02	S.I 3-2 Inspect Hinge area on door and fuselage for broken hinge segments.	3B	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B Probe	17000 FH	1000 FH	N/A
*52.10.03	S.I 3-3 Inspect Upper AFT corner of door frame on fuselage for cracks.	3C	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	10000 FH	2000 FH NOTE 5	N/A
*52.10.04	S.I 3-4 Inspect Outer skin at upper aft fuselage door frame for cracks.	3D	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B Probe	10000 FH	2000 FH	N/A
*52.10.05	S.I 3-5 Inspect Upper forward corner of door frame on fuselage for cracks.	3E	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	10000 FH	2000 FH NOTE 5	N/A
*52.10.06	S.I 3-6 Inspect inside cabin door, LWR AFT corner, at floor level for crack in the frames.	3F	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	20000 FH	3000 FH	N/A
*52.10.07	S.I 3-7 Inspect door sill web at notches for FWD and AFT side fuselage door frame pass-through. See NOTE 1.	3G	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	8000 FH	2000 FH	N/A
*52.10.08	S.I 3-8 Inspect Top center Latch assembly. See NOTE 2 & 3.	3H	N/A	N/A	N/A	3000 FH for SA227TT, AT 10000 FH for SA227AC, BC

CABIN DOOR / FRAME AREA						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*52.10.09	S.I 3-9 Check FWD and AFT click-clack bushing receptacles for cracks. See NOTE 3.	3I	Visual	300 FH NOTE 4	1200 FH	N/A
NOTE 1: After accomplishing Service Bulletin 227-53-004, inspection is not required. NOTE 2: Retirement life only applies to latch actuator, Hartwell P/N's H931 and H2949, and M7 P/N's 27- 24135 and 27-24151. NOTE 3: Inspection requirements and retirement life are applicable to locations on the door that incorporate click-clack type latch assemblies (i.e., Hartwell P/N's H931 and H2949, and M7 P/N's 27- 24135 and 27-24151). Inspection requirements and retirement life are not applicable to locations on the door that incorporate bayonet type latch assemblies. NOTE 4: Within 300 hours time-in service (TIS) from the receipt of Service Letter 227-SL-043. Re- inspect every 1200 hours TIS thereafter. NOTE 5: Replacement of a damaged door frame corner resets the initial inspection period of 10,000 hrs.						

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408.

Note: This probe requires a separate cable (the same probe cable as above).

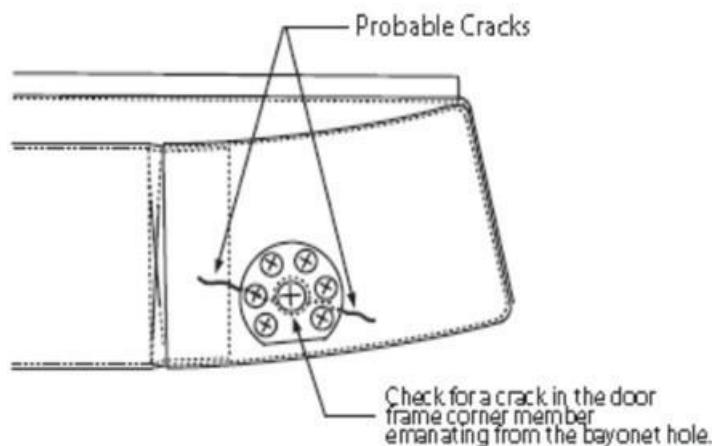


Figure 3A
View Looking Aft at Lower FWD Corner of Open Door

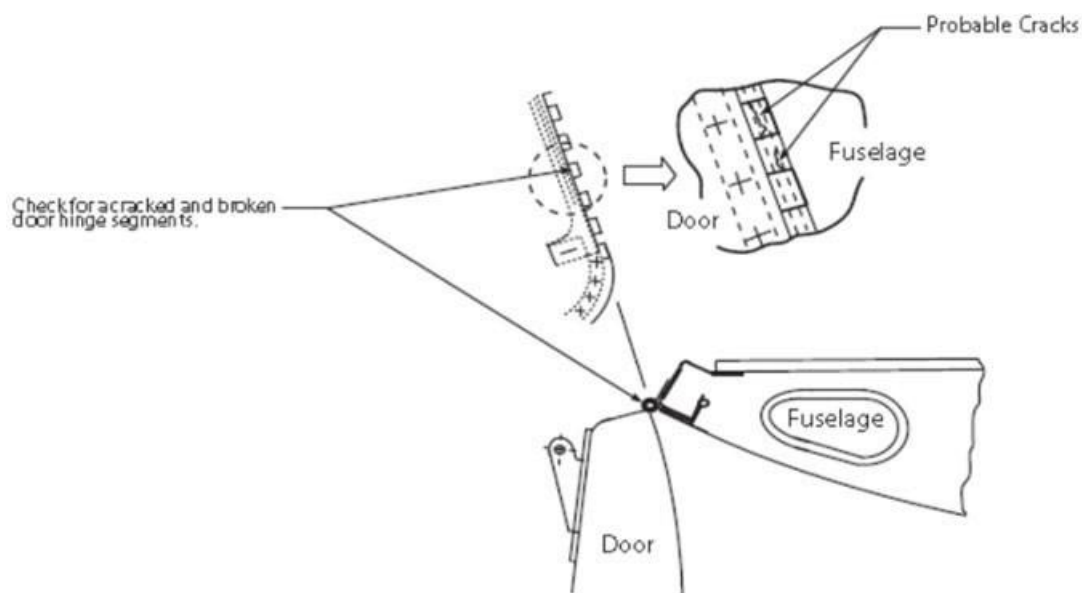


Figure 3B
View Looking Forward at Open Door

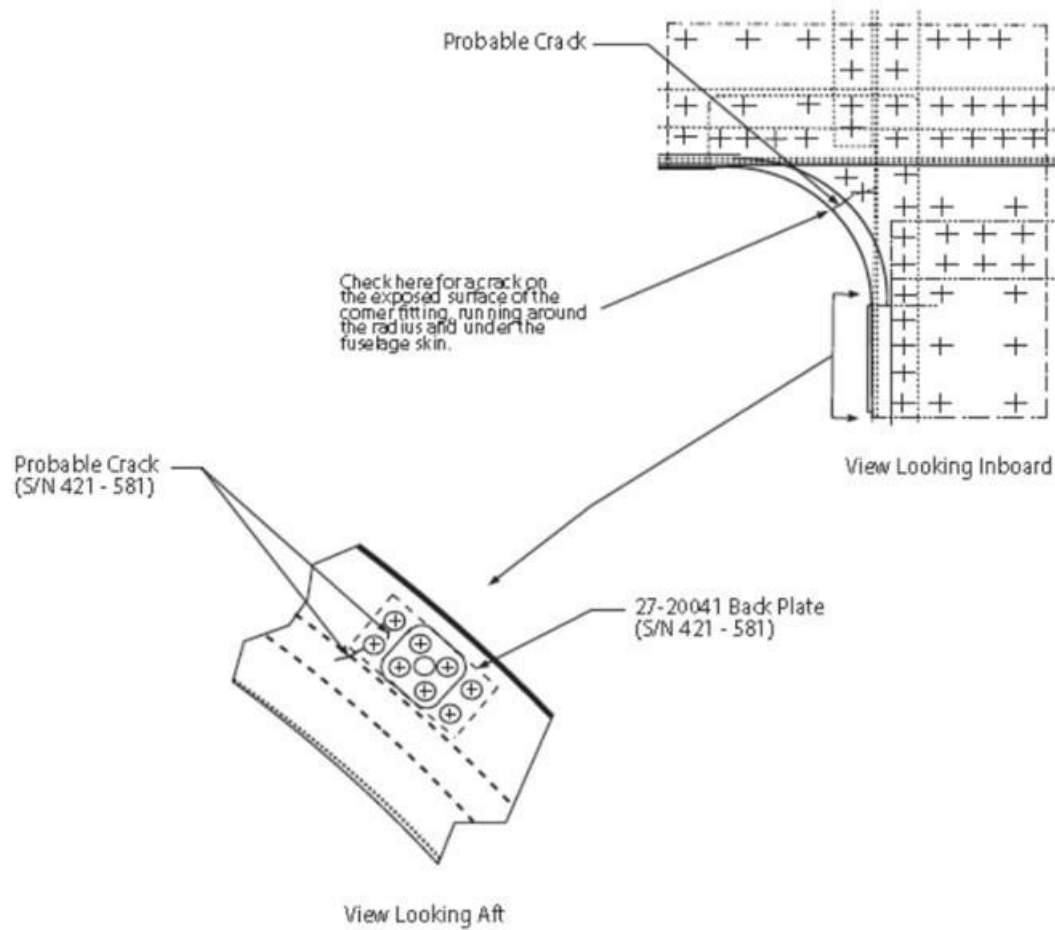


Figure 3C
Upper Aft Fuselage Frame Corner

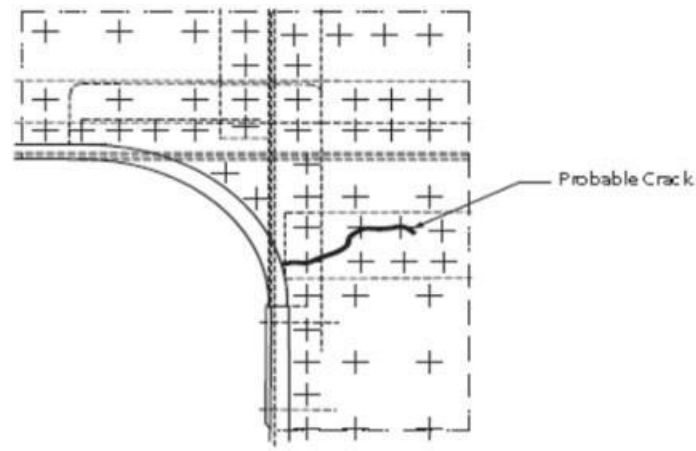


Figure 3D
View Looking Inboard at Upper Aft Door Opening

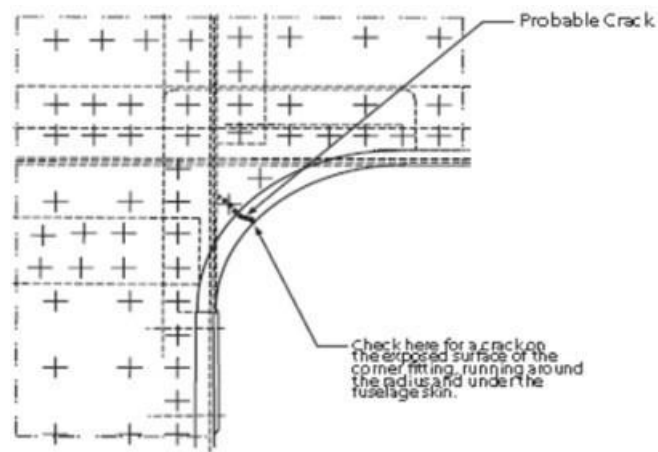


Figure 3E
View Looking Inboard at Upper Forward Door Opening

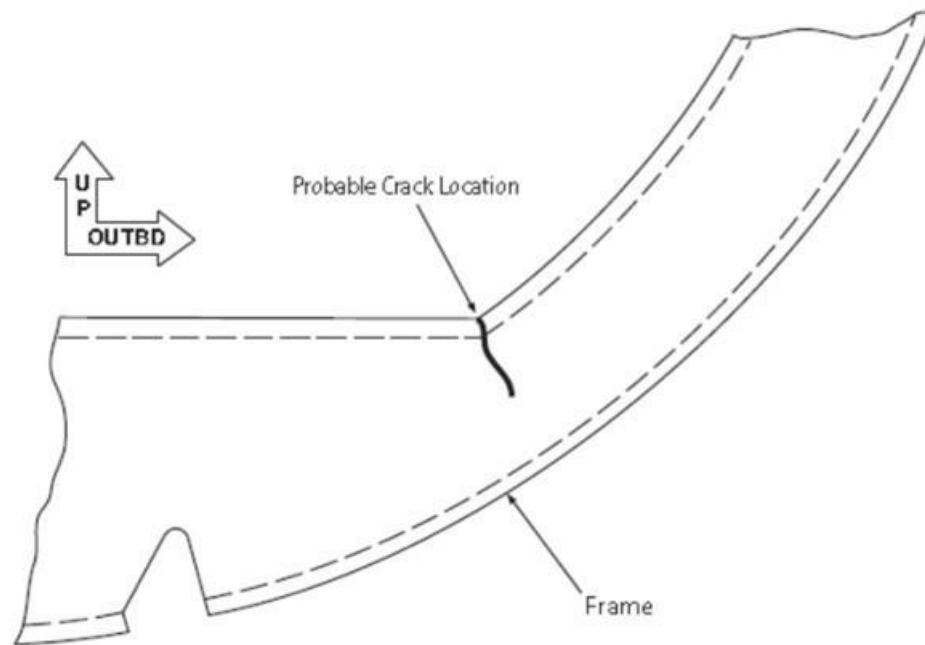
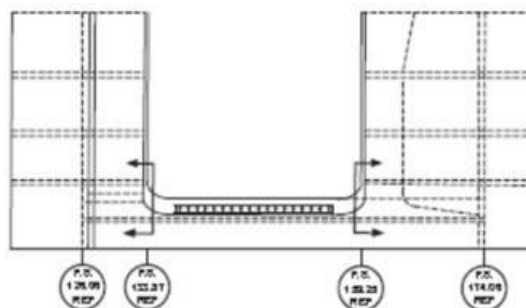
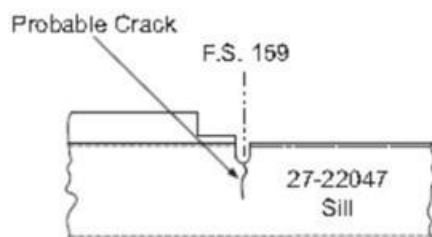


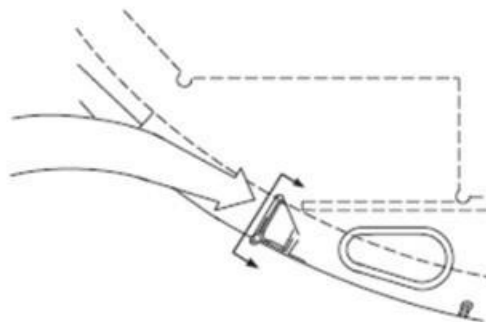
Figure 3F
View – Inside, Lower Aft Corner



View Looking Inboard at Cabin Door



Check for cracks at the slot in the door sill web at the fwd and aft-side door frame locations.



Looking Fwd at Fwd Door Frame
(Aft Frame is Opp)

Figure 3G
Door Sill Cracks

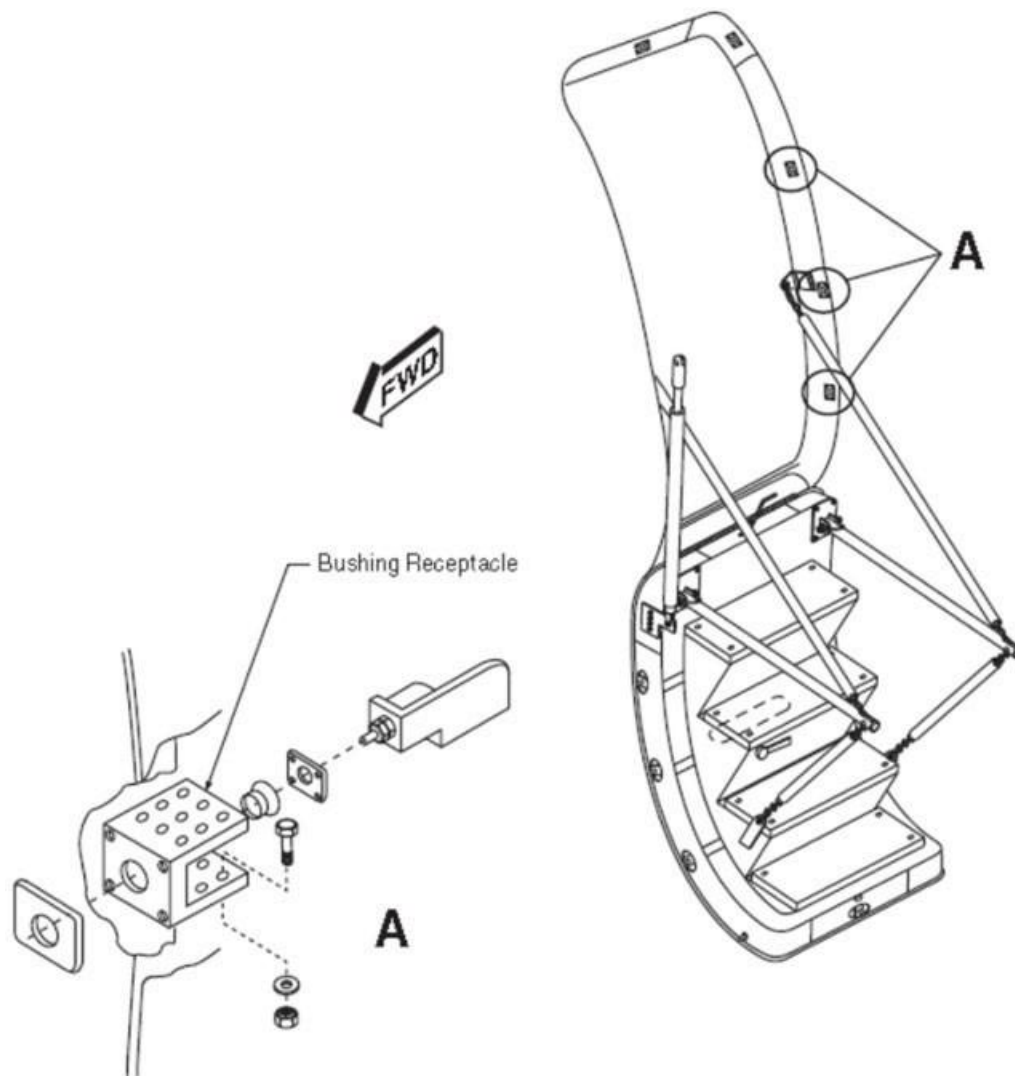


Figure 3H
Click-Clack Bushing Receptacle

CH 2.8 Cabin-Left Side

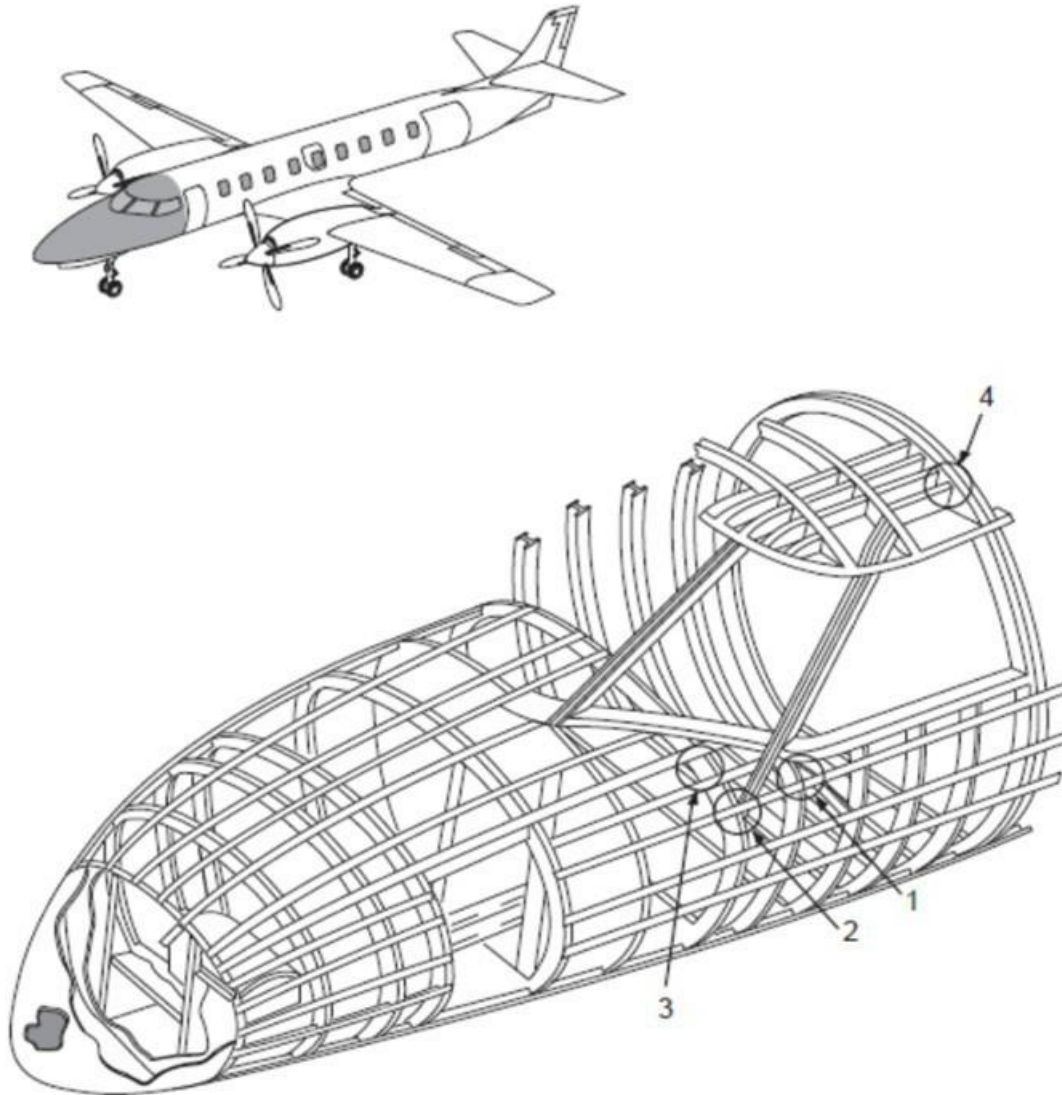


Figure 4

CABIN - LH SIDE						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*53.10.01	S.I. 4-1 Inspect inside cabin, on LH/RH side along stringer #8 at the frame for cracks in the frame.	4A	Visual	17500 FH	3000 FH	N/A
*53.10.02	S.I. 4-2 Inspect inside cabin, on LH/RH side along stringer #8 at the frame for cracks in the clip.	4A	Visual	17500 FH	3000 FH	N/A
*53.10.03	S.I. 4-3 Inspect inside cabin, on LH/RH side between stringers #8 and #6 at the frame for cracks in the frame.	4A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	26000 FH	3000 FH	N/A
*53.10.04	S.I. 4-4 Inspect inside the cabin, overhead on the LH side for cracks in the frame.	4B	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	23000 FH	3000 FH	N/A

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013.

Note: This probe requires a separate cable.

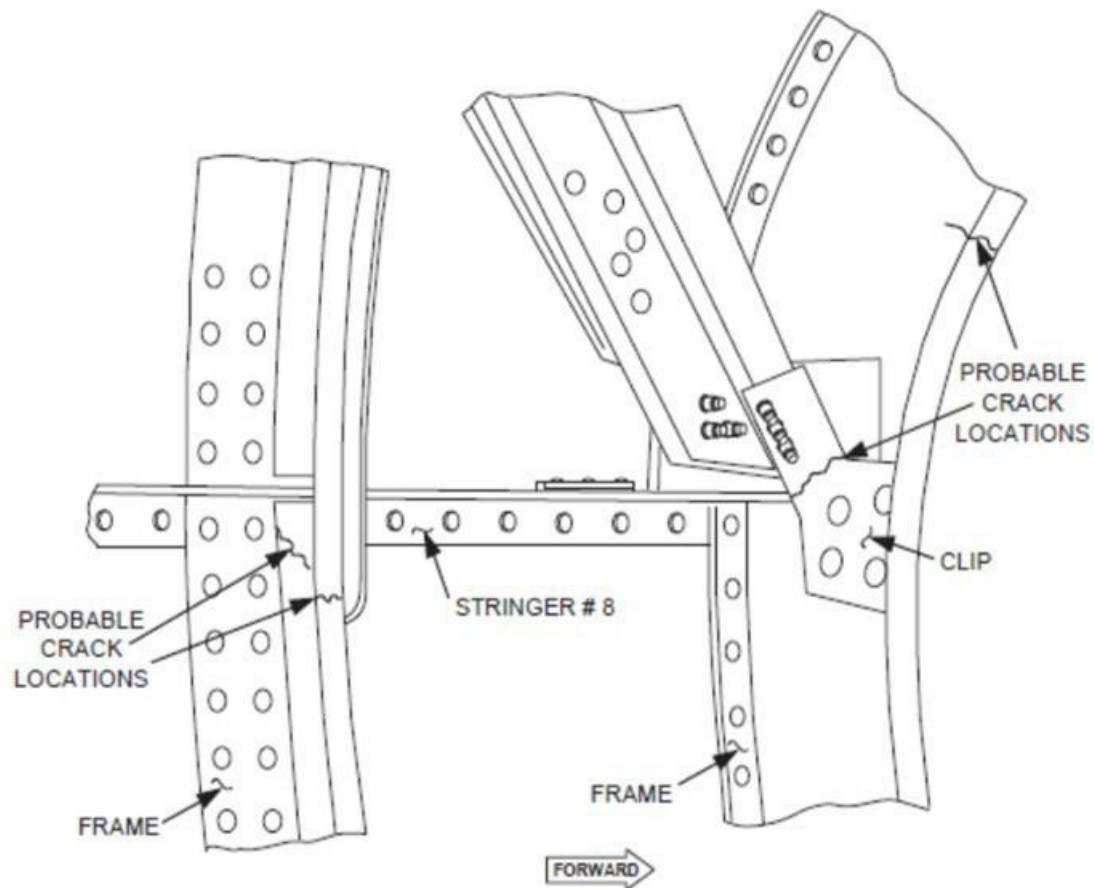


Figure 4A

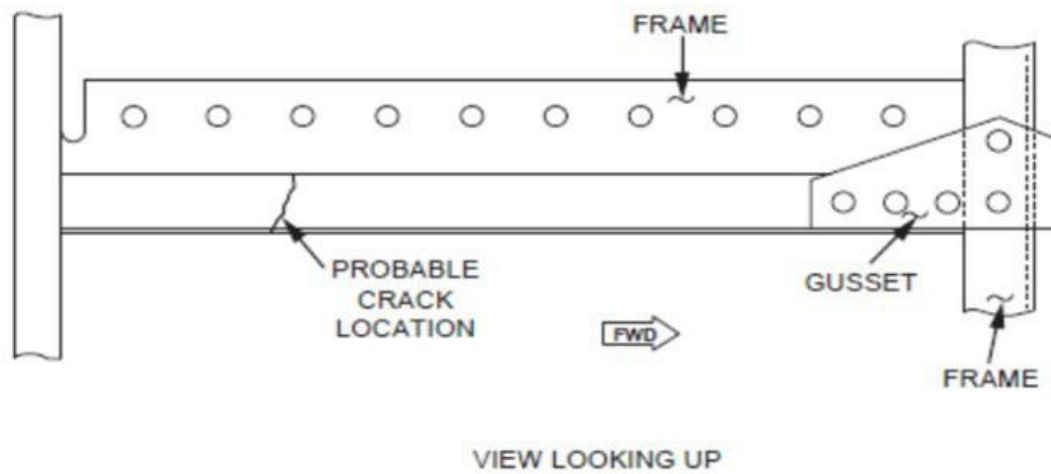


Figure 4B

CH 2.9 Cabin-Right Side

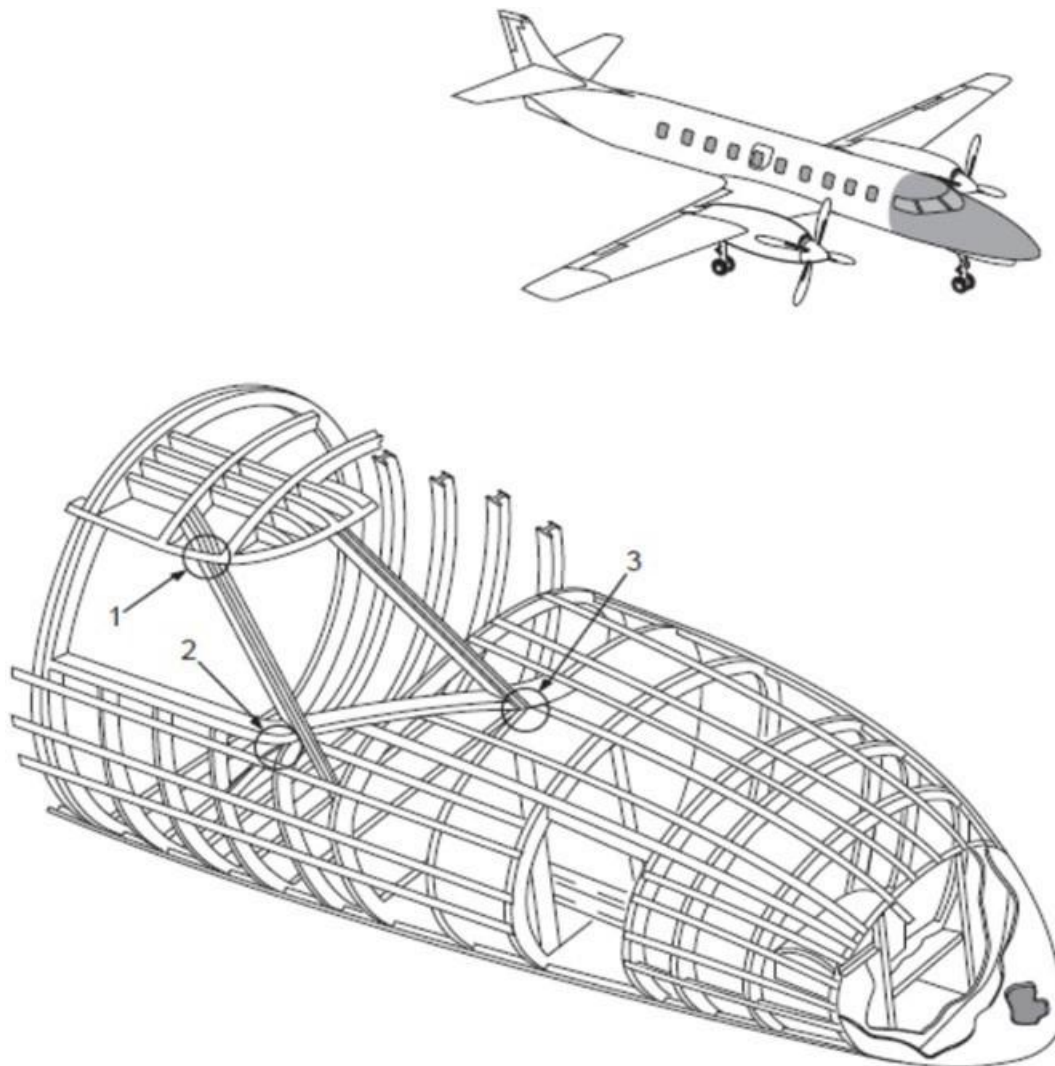


Figure 5

CABIN - RH SIDE						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*53.10.05	S.I. 5-1 Inspect Outside cabin, on the Upper Outboard corner of the windshield retainer trim plate for cracks in the trim plate.	5A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	25000 FH	3000 FH	N/A
*53.10.06	S.I. 5-2 Inspect inside the cabin, on the RH side below right center windshield for cracks in the frame.	5B	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	25000 FH	1000 FH	N/A
*53.10.07	S.I. 5-3 Inspect inside the cabin, along the upper flange radius of the FWD bulkhead at the frame for cracks in the radius.	5C	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	25000 FH	1000 FH	N/A

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013. Note: This probe requires a separate cable.

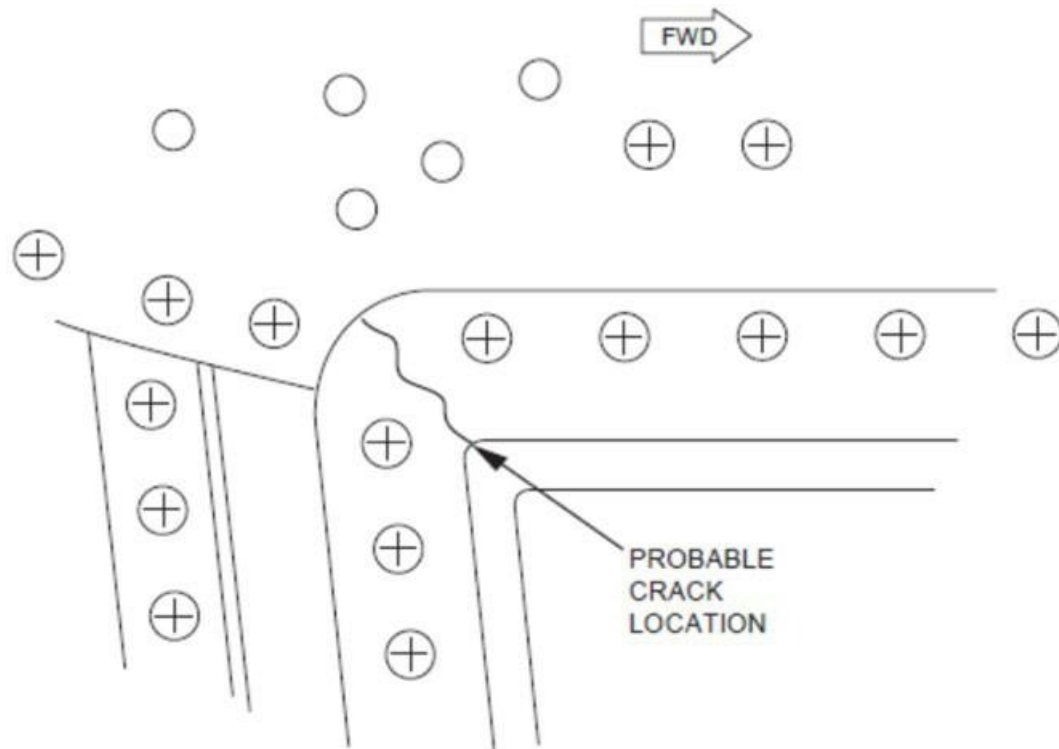


Figure 5A

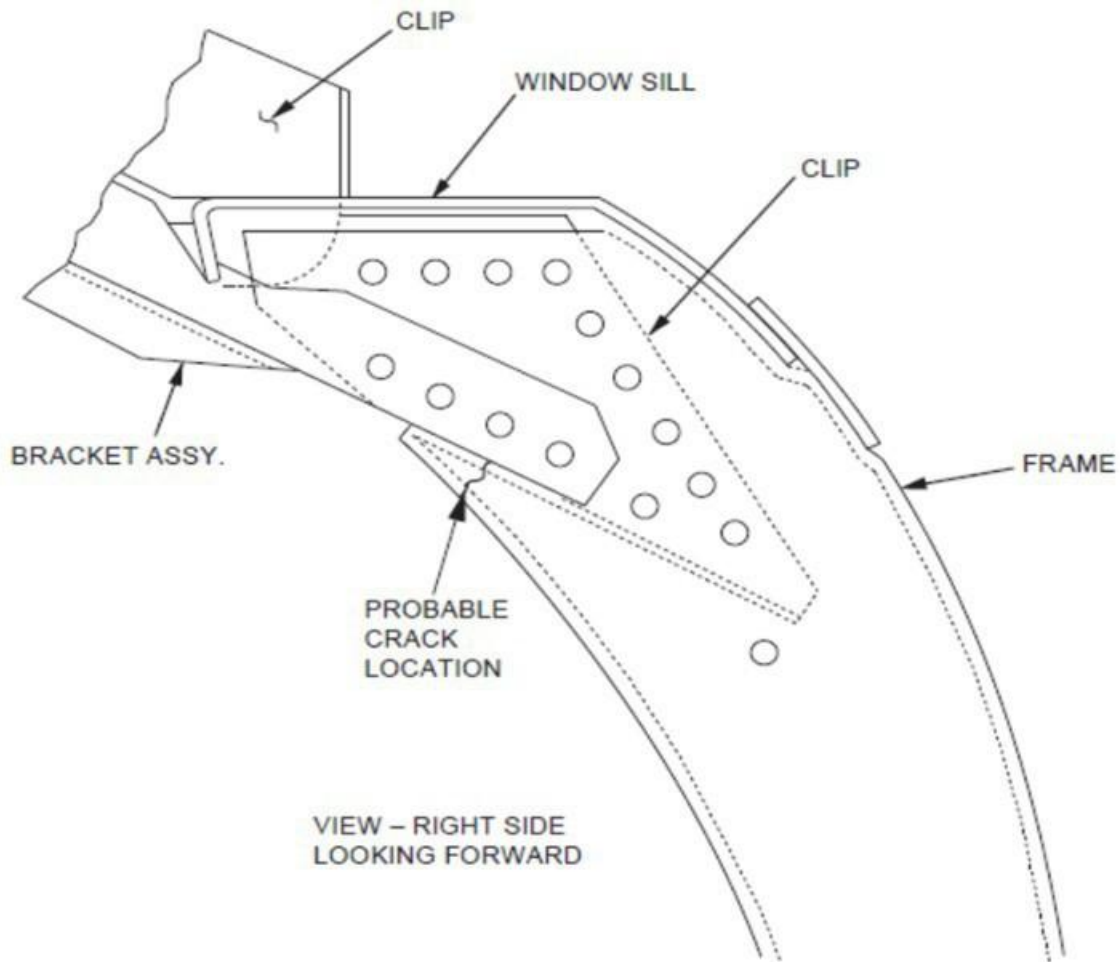


Figure 5B

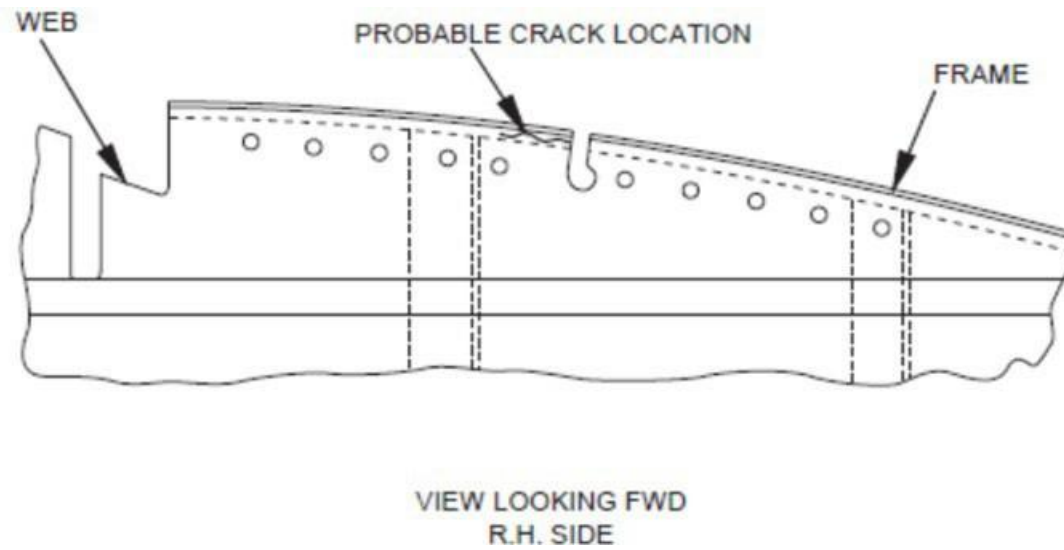


Figure 5C

CH 2.10 Fuselage

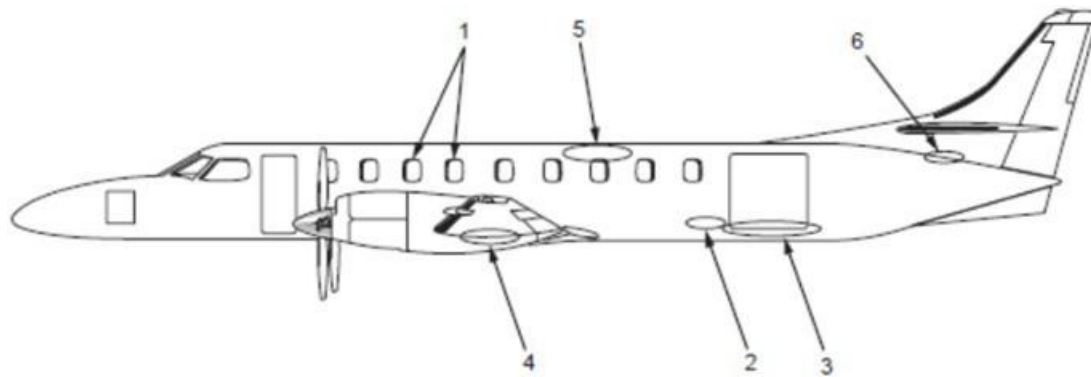


Figure 6

FUSELAGE						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*53.10.08	S.I. 6-1 Inspect outside of the aircraft. Check all windows and escape hatches for cracks in the skin around the windows.	6A	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B & C Probes	23000 FH	3000 FH	N/A
*53.10.09	S.I. 6-2 Inspect outside of the aircraft, on the fuselage near LWR FWD corner of door (STA 435) for cracks in the skin.	6B	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B & C Probes	23000 FH	3000 FH	N/A
*53.10.10	S.I. 6-3 Inspect outside of the aircraft below the cargo door (STA 435 thru 493) for failed rivets along the entire fuselage below the door. (STR #12) Applies only to SA227AC, AT and BC aircraft.	6B	Visual	10000 FH	1000 FH	N/A
*53.10.11	S.I. 6-4 Inspect on the inside of the aircraft, between STA 287 and wing front spar. Check the intercostal for cracks. See NOTE 1.	6C	Method 1: Visual and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH	1000 FH	N/A
*53.10.12	S.I. 6-5 Inspect on the inside of the aircraft, on LH side between STA 347 and 362 and stringer 2 and 3. Check cargo tie intercostal for cracks at the rivets. Applies only to SA227AC, AT and BC aircraft.	6D	Method 1: Visual and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	23000 FH	3000 FH	N/A
*53.10.13	S.I. 6-6 Inspect inside the tailcone, LH/RH side of bulkhead at (STA 565 for SA227AC, AT and BC) (STA 359 for SA227TT) for cracks in the bulkhead.	6E	Method 1: Visual and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH	2500 FH	N/A
NOTE 1: These intercostal exist only on serial numbers: 420 thru 570 except 482, 504, 532, 538, and 577, 578, 580 and aircraft with cargo modification IAW drawing 27-13885.						

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013.

Note: This probe requires a separate cable.

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408. Note: This probe requires a separate cable (the same probe cable as above).

Type C Probe: 1 to 100 KHz sliding probe similar to the NORTEC sliding probe stock No. SPO3806. Note: This probe requires a separate cable.

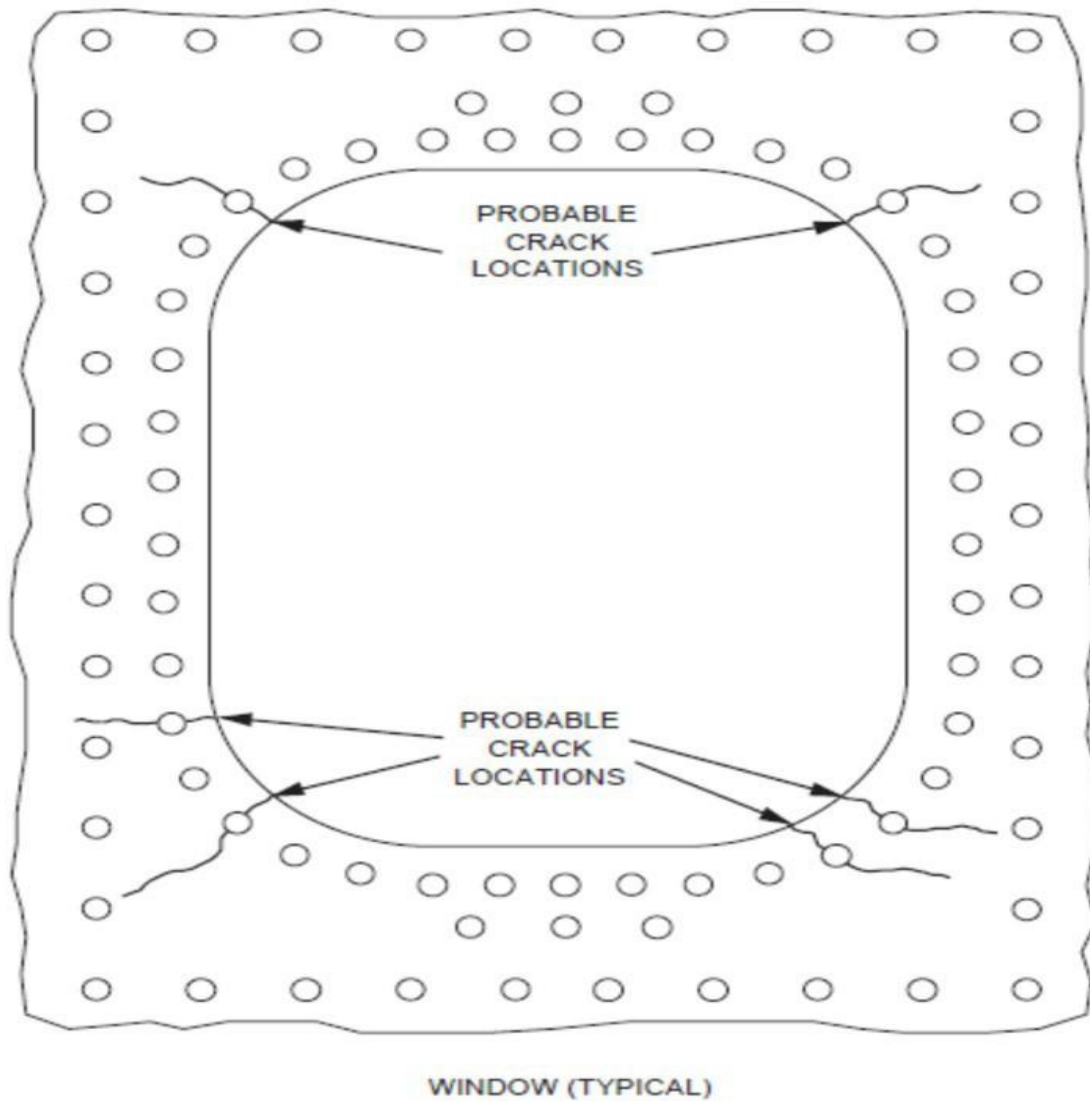


Figure 6A

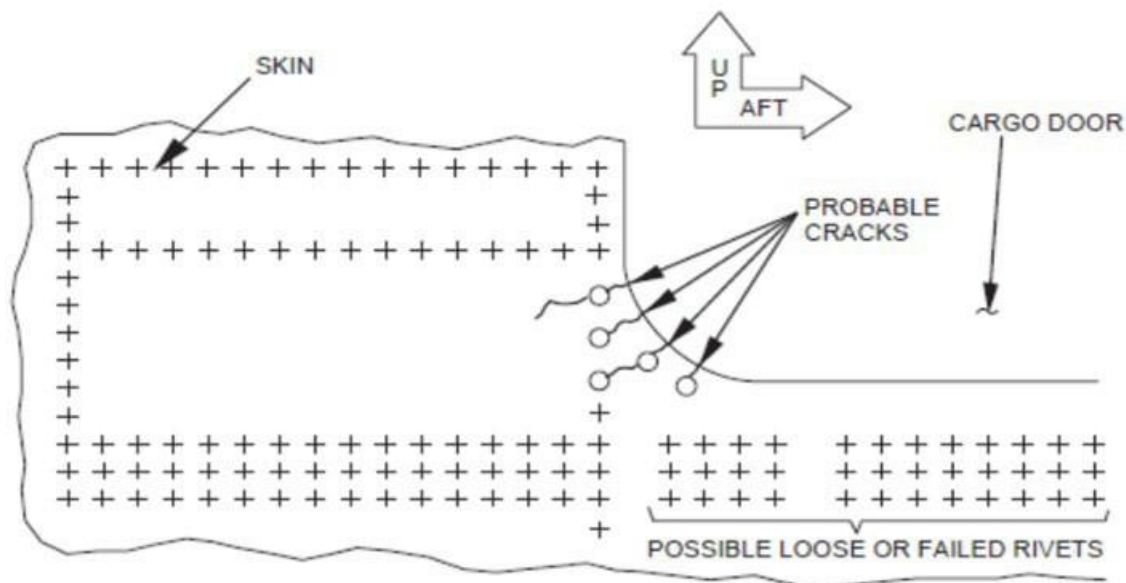


Figure 6B

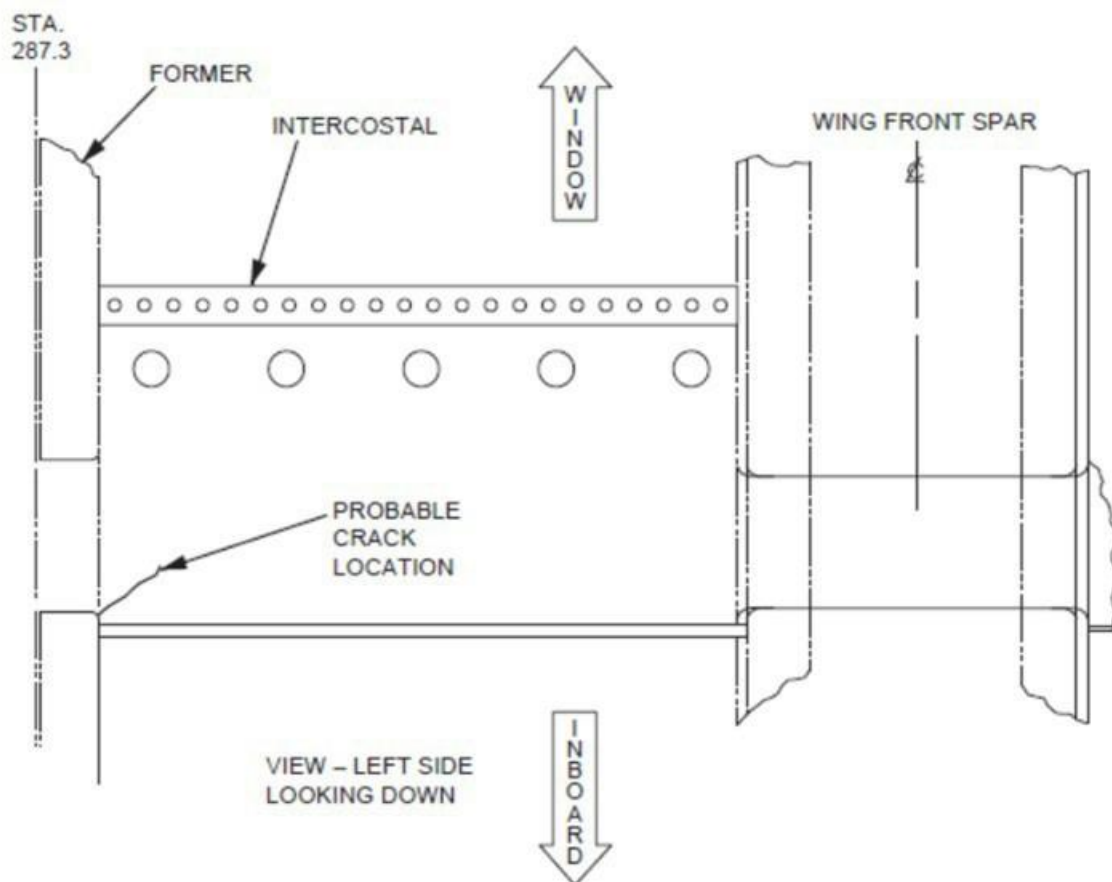


Figure 6C

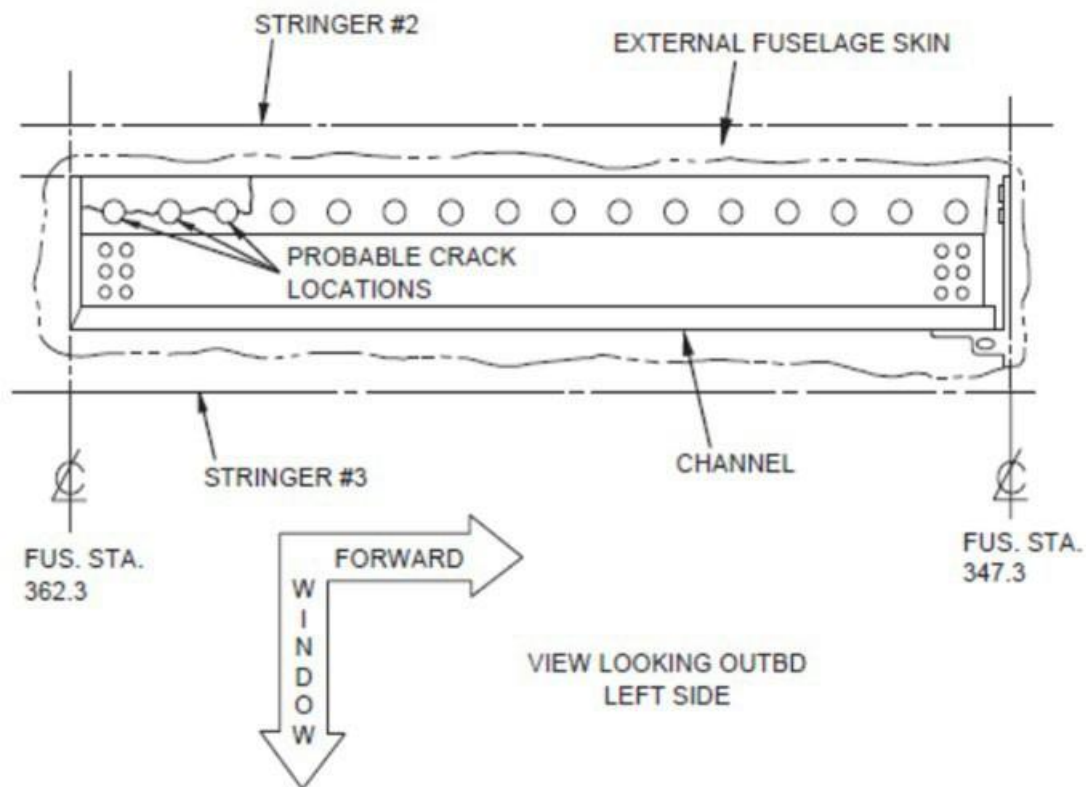


Figure 6D

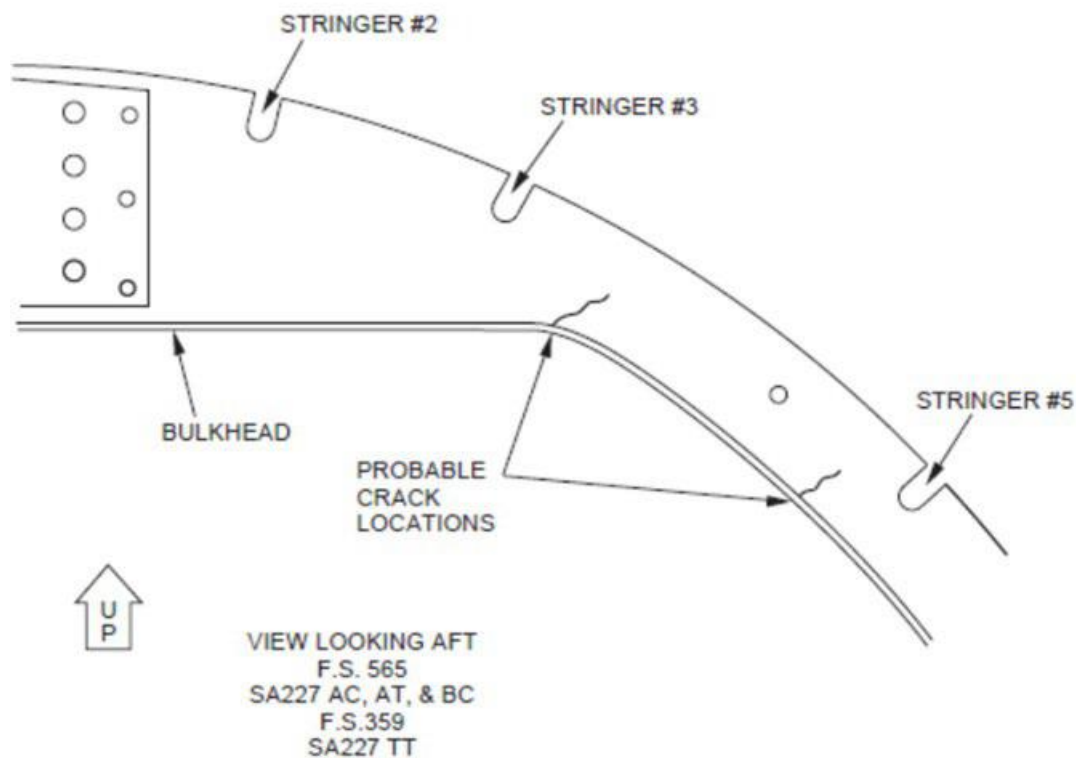


Figure 6E

CH 2.11 Cargo Area/Fuselage

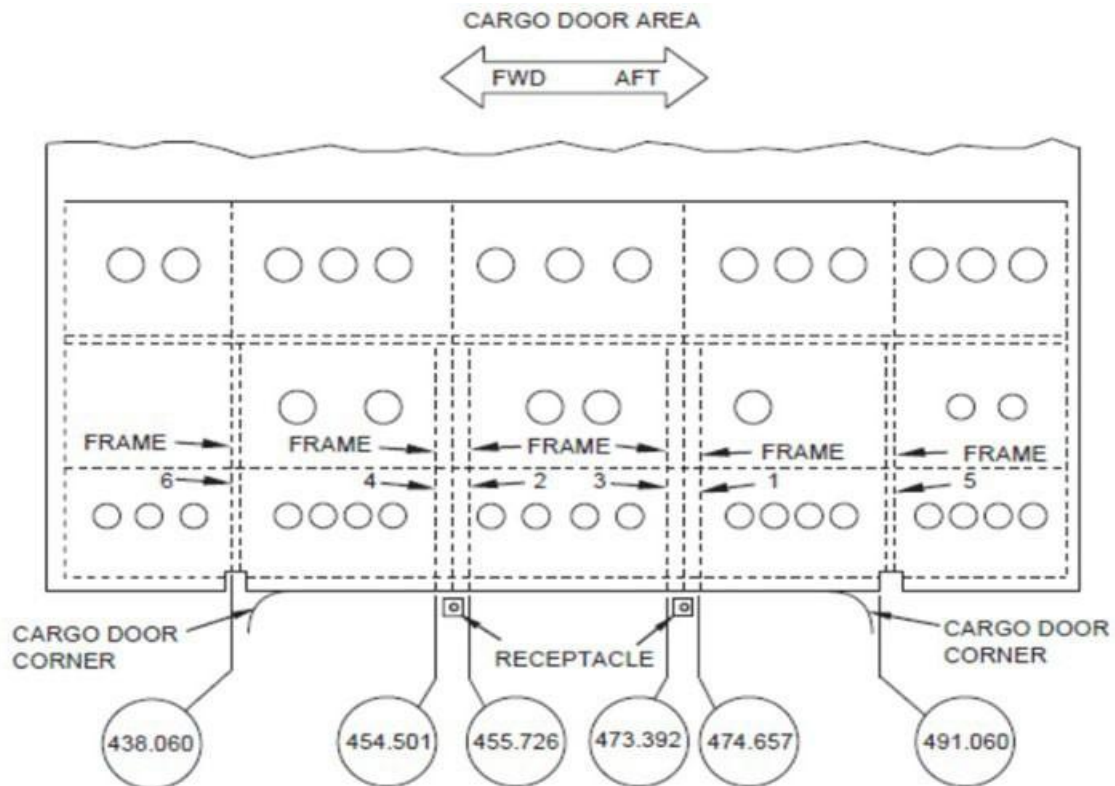


Figure 7

CARGO AREA/FUSELAGE						
Applies only to SA227AC, AT and BC Aircraft Only.						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*53.20.01	S.I. 7-1 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 474 LWR AFT receptacle.	7A	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH NOTE 1 17000 FH NOTE 2 17000 FH NOTE 3	1000 FH	N/A
*53.20.02	S.I. 7-2 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 455 LWR FWD receptacle.	7A	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH NOTE 1 17000 FH NOTE 2 17000 FH NOTE 3	1000 FH	N/A
*53.20.03	S.I. 7-3 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 473 LWR AFT receptacle.	7A	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH NOTE 1 17000 FH NOTE 2 17000 FH NOTE 3	1000 FH	N/A
*53.20.04	S.I. 7-4 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 454 LWR FWD receptacle.	7A	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	6500 FH NOTE 1 17000 FH NOTE 2 17000 FH NOTE 3	1000 FH	N/A
*53.20.05	S.I. 7-5 Inspect Below cargo floor for cracks in the frame at STA 491.	7B	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	17000 FH	1000 FH	N/A
*53.20.06	S.I. 7-6 Inspect Below cargo floor for cracks in the frame at STA 438	7B	Method 1: Visual (With Mirror) and Penetrant Inspection Or Method 2: Eddy Current Inspection Type A Probe	17000 FH	1000 FH	N/A
NOTE 1: Aircraft Serial Numbers: 398 – 478 except 457 and 470. NOTE 2: Aircraft Serial Numbers: 398 – 478 except 457 and 470, and AT-423 – 469 which have complied with Service Bulletin 227-53-003. NOTE 3: Aircraft Serial Numbers: 457, 470 and subsequent.						

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013.

Note: This probe requires a separate cable.

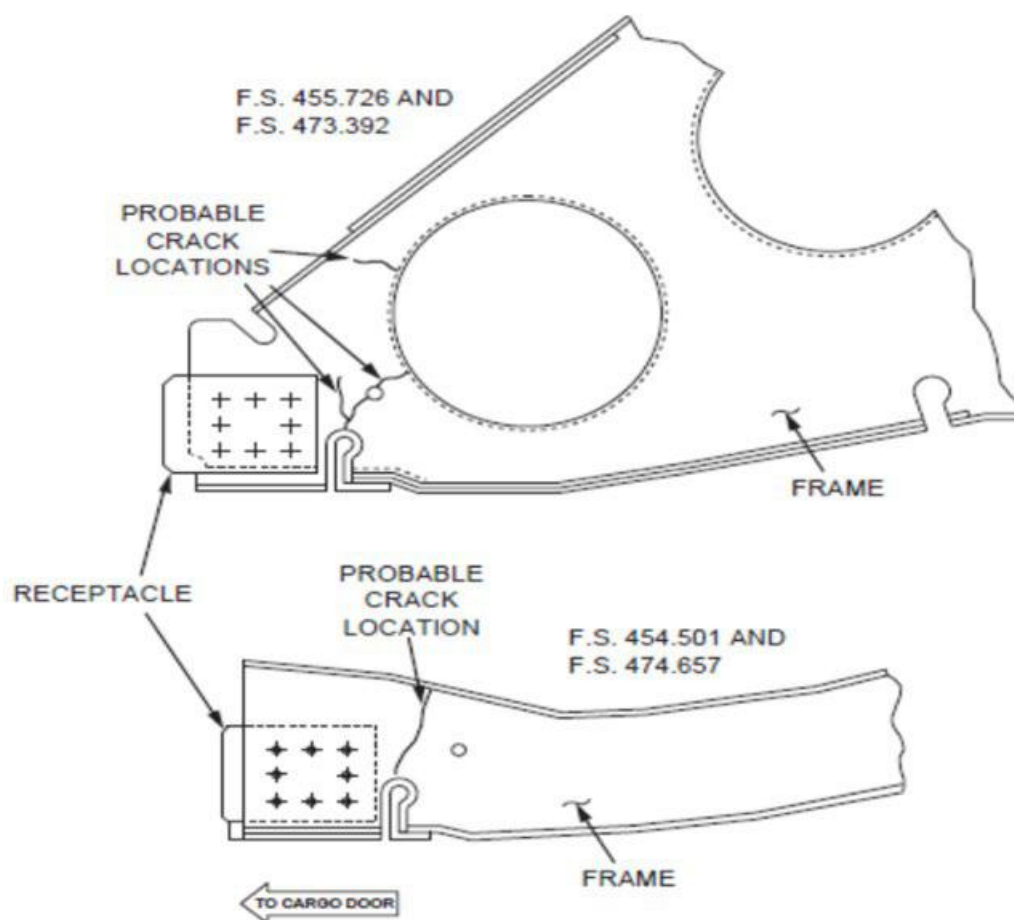


Figure 7A

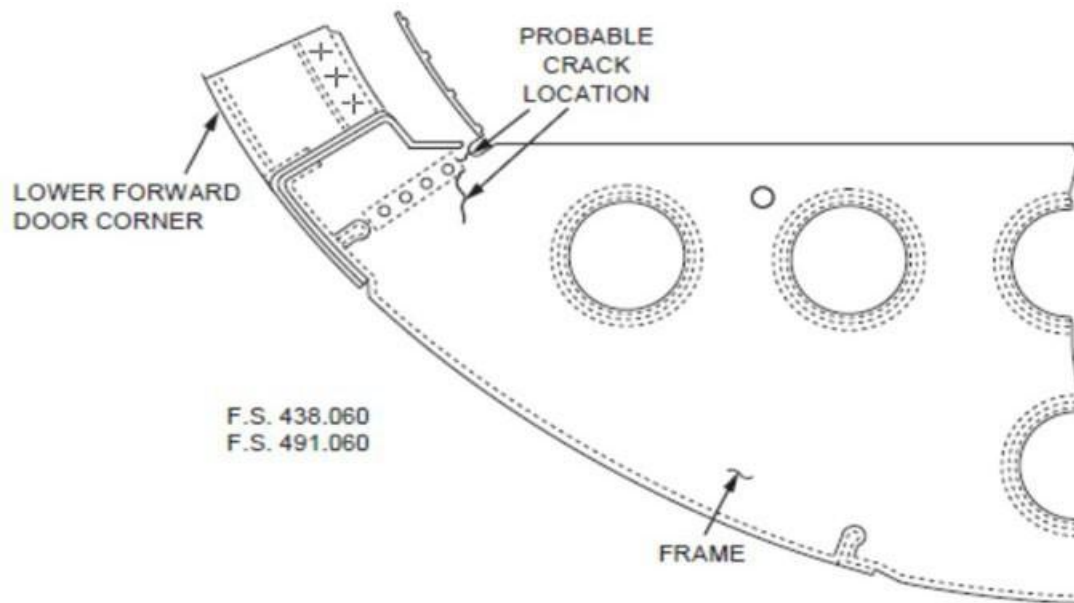


Figure 7B

CH 2.12 Horizontal Stabilizer

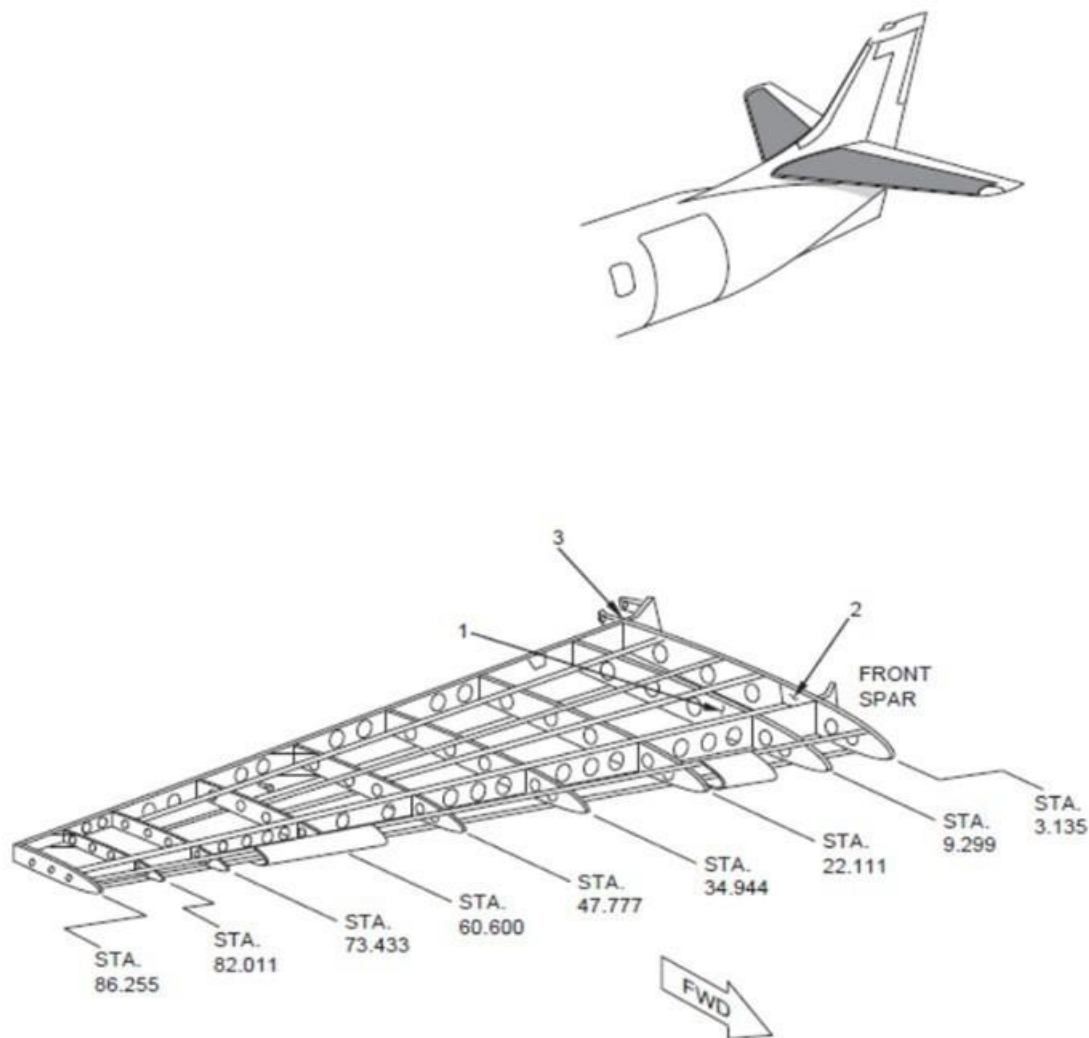


Figure 8

HORIZONTAL STABILIZER						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*55.00.00	Horizontal Tail Life Limit	N/A	N/A	N/A	N/A	35000 FH or NOTE 3
*55.00.01	S.I. 8-1 Inspect LH/RH stabilizer along the rib, AFT of front spar for cracks in the rib where the rib narrows to mate with the spar.	8A	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	30000 FH	3000 FH	N/A
*55.00.02	S.I. 8-2 Inspect LH/RH stabilizer along the rib (STA 3.135) AFT of front spar for cracks in the gusset.	8B	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	30000 FH	3000 FH	N/A
*55.00.03	S.I. 8-3 Inspect LH/RH stabilizer at AFT spar for cracks or a break in P/N 27-43057 upper and LWR rib splice straps. See NOTE 1 & 2.	8C	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	30000 FH	2000 FH	N/A
*55.00.04	S.I. 8-4 Inspect at all stringer-rib joints for cracked rib flange by pressing on rib and stringer separately. NOTE: A difference in skin deflection (or feeling of softness) indicates the rib flange is separating from the rib.	8D	Visual	10000 FH	2000 FH	N/A
NOTE 1: It is not necessary to lift the skin, inspect inboard edge. NOTE 2: Service Bulletin 227-55-007 replaces Splice Strap P/N 27-43057 with P/N 27-43077. If Service Bulletin has been complied with, then no inspection is required for item 8-3. NOTE 3: Refer to Table 2.22 Supplemental Inspections and SA227 SID 27-10054-213 for Life extension.						

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013.

Note: This probe requires a separate cable.

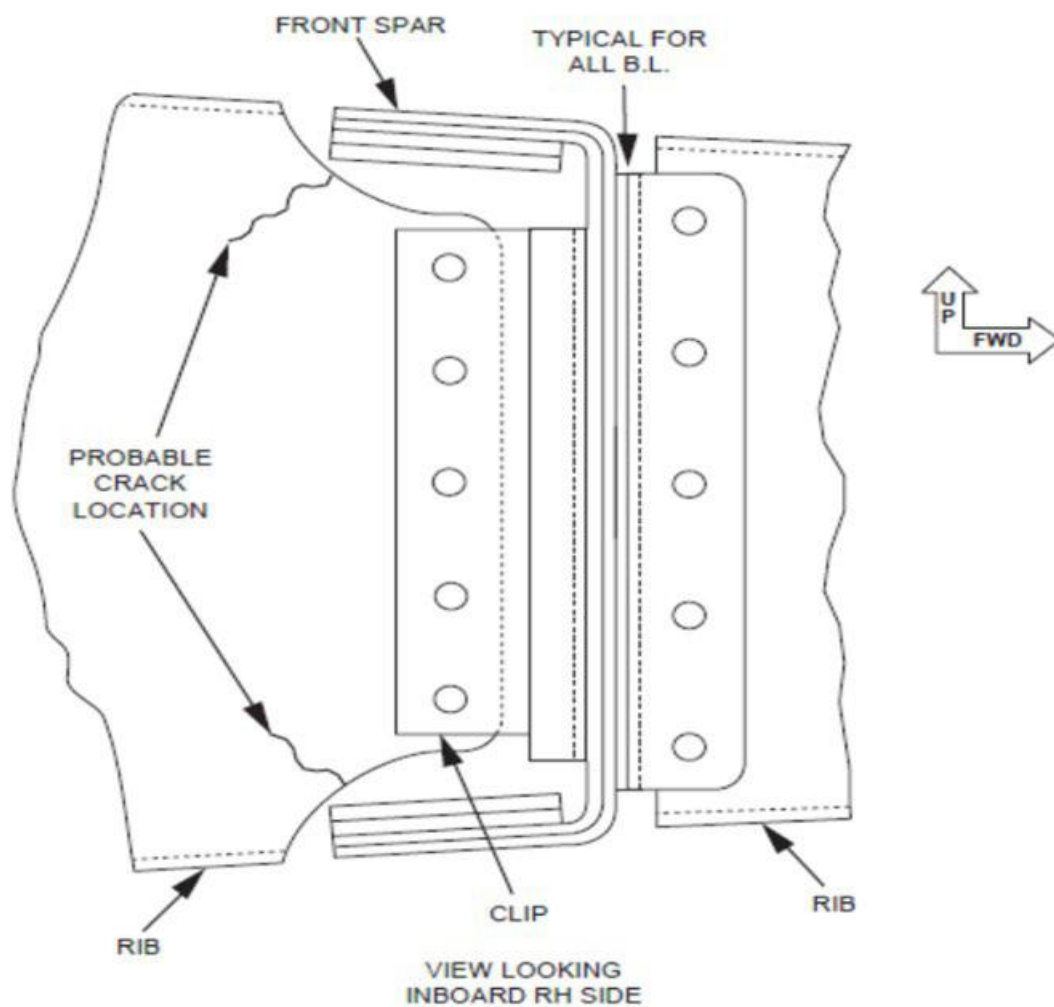


Figure 8A

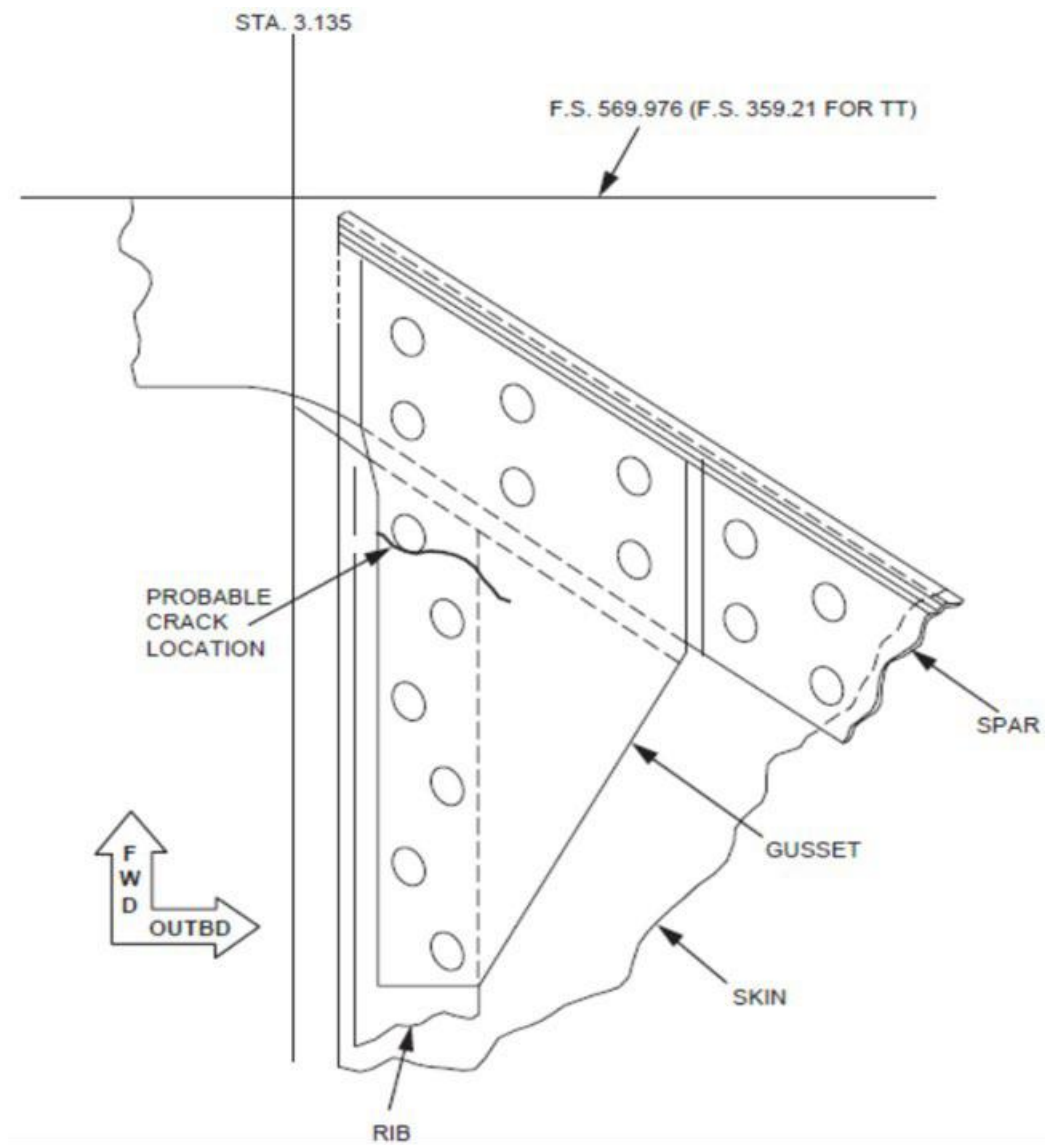


Figure 8B

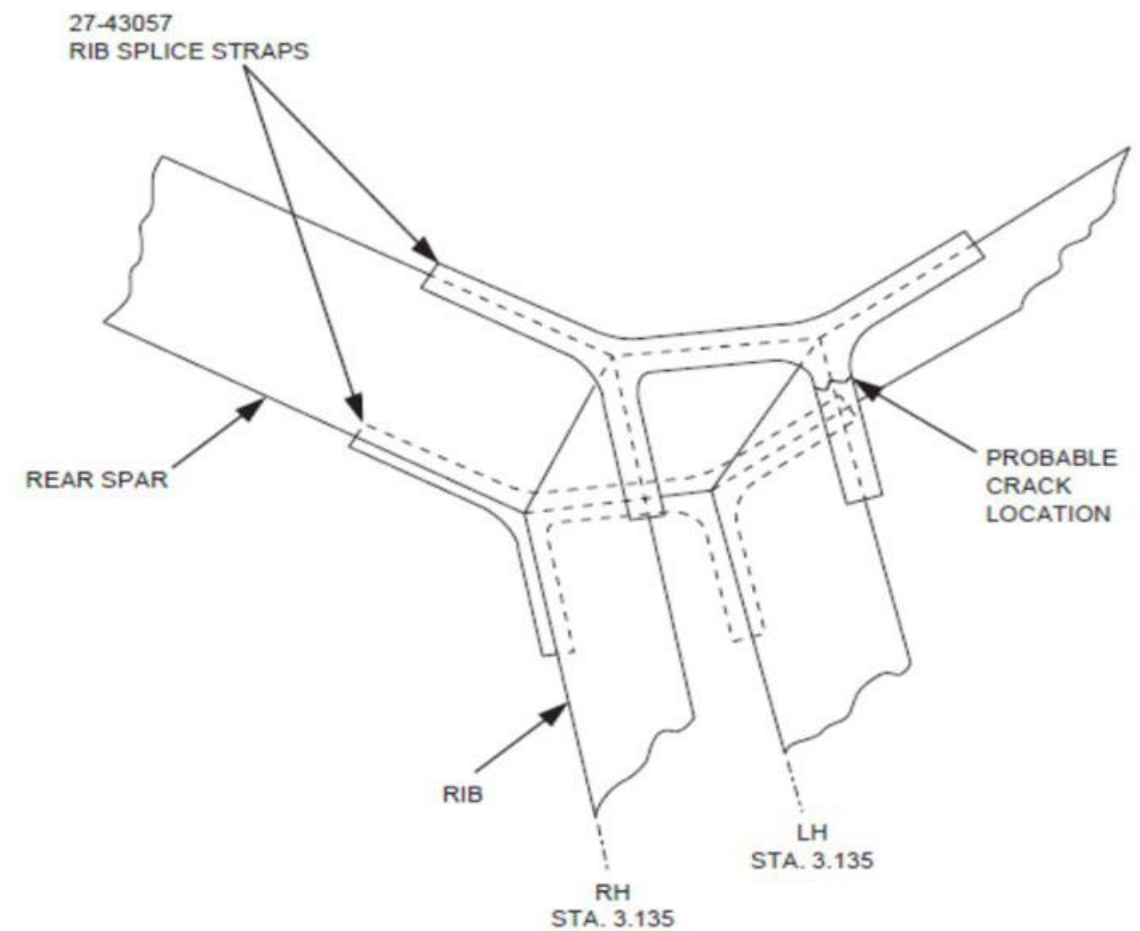


Figure 8C

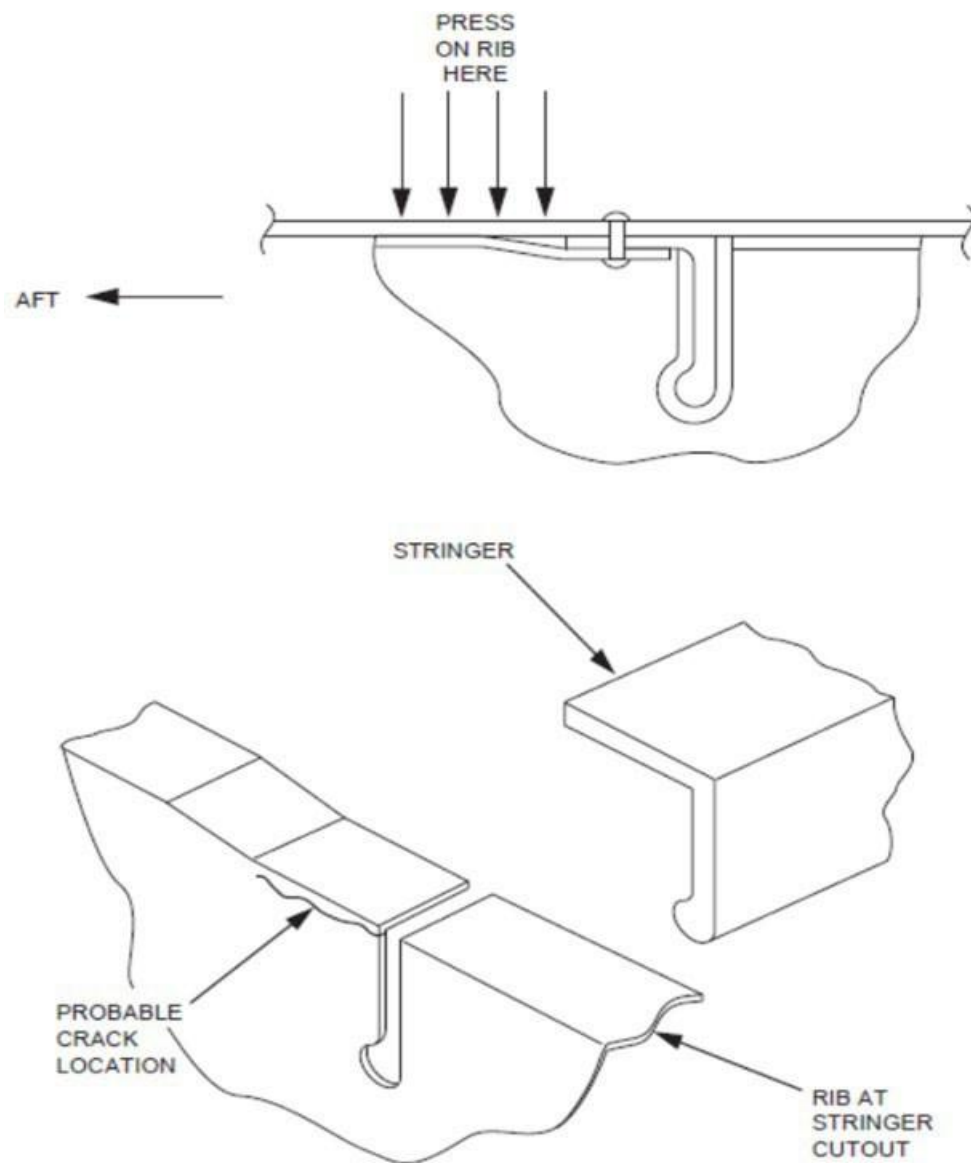


Figure 8D

CH 2.13 Vertical Stabilizer

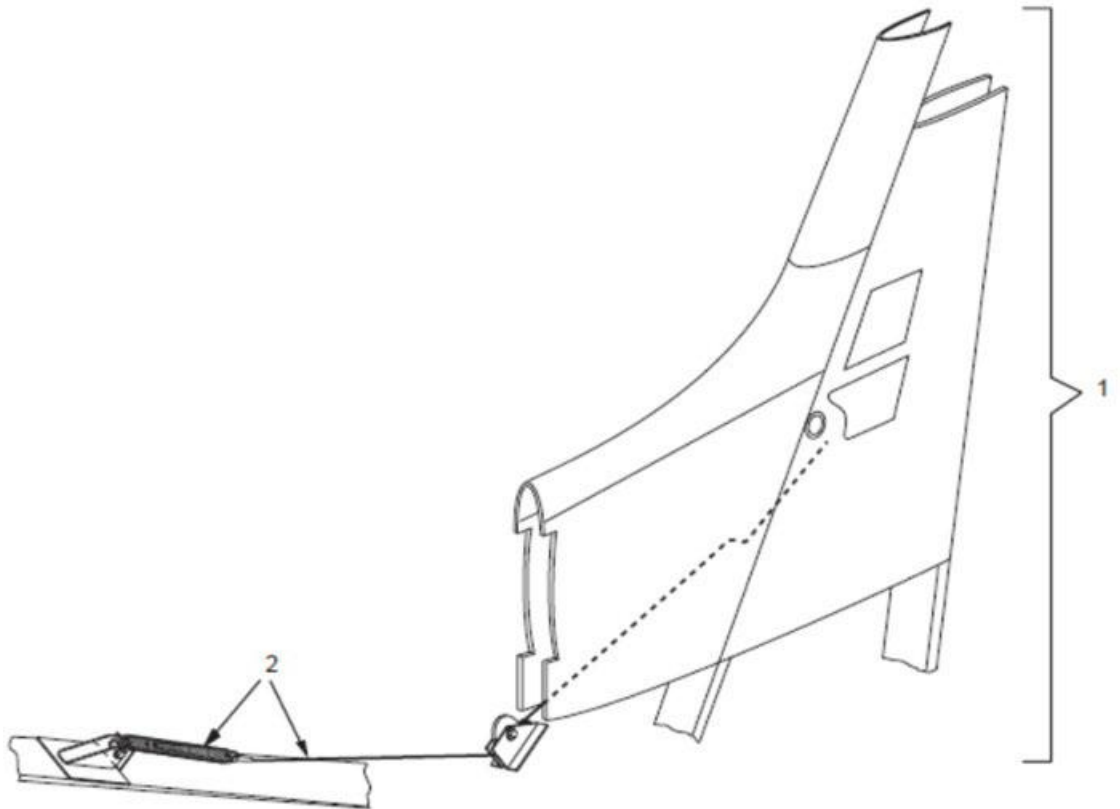


Figure 9

LIMITATIONS AND INSPECTION MANUAL

Issued: 04-16-2021

Page Number: 2.48

VERTICAL STABILIZER						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*55.10.00	S.I. 9-1 Vertical Tail Life Limit	N/A	N/A	N/A	N/A	35000 FH or NOTE 1
*27.30.11	S.I. 9-2 Inspect Elevator down spring for wear and broken cable wires.	N/A	Visual	5000 FH	5000 FH	N/A
NOTE 1: Refer to Table 2.22 Supplemental Inspections and SA227 SID 27-10054-213 for Life extension.						

CH 2.14 Wings

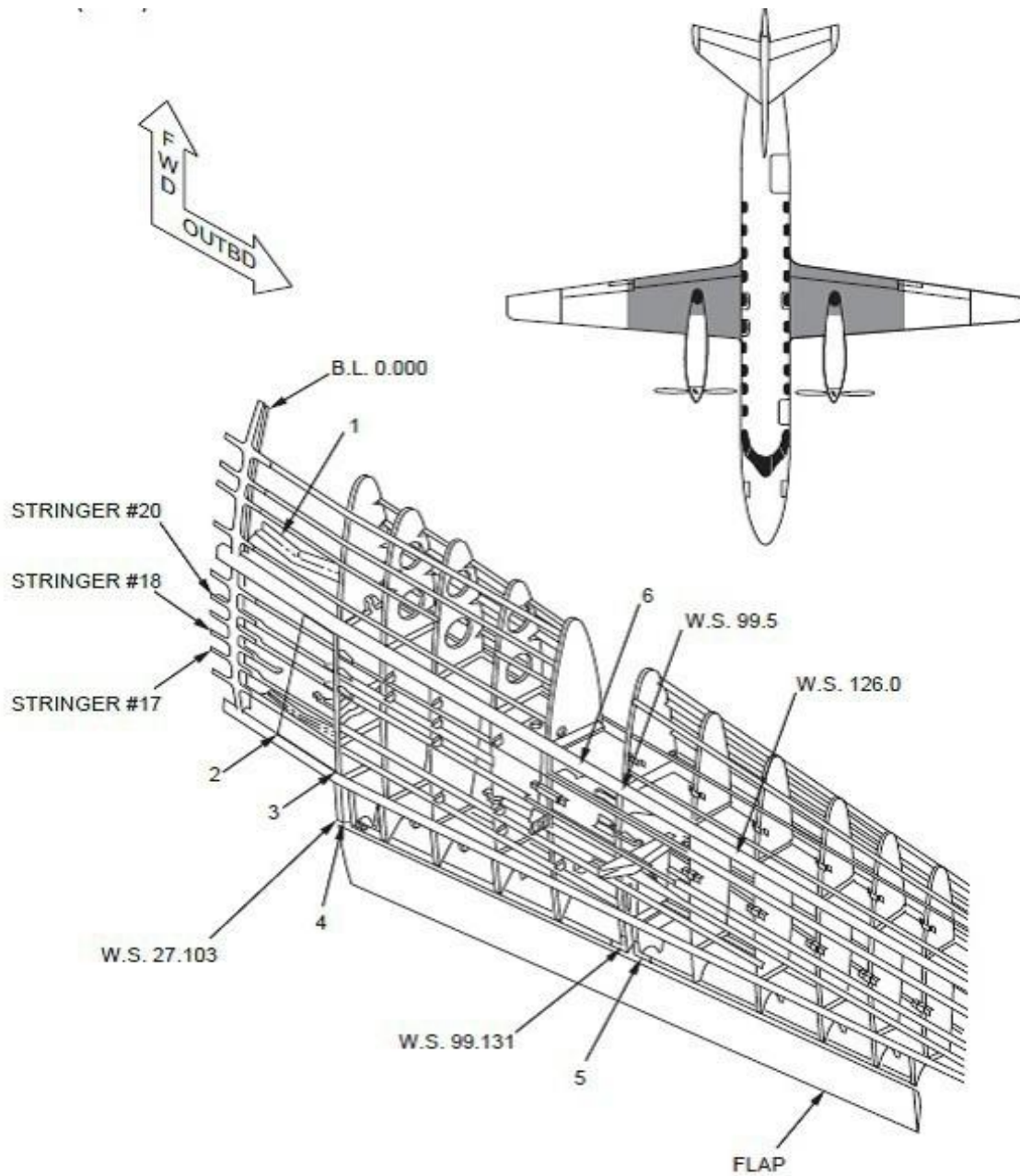


Figure 10

WINGS						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*57.00.01	S.I. 10-1 Inspect Wing main spar, FWD & AFT and center webs. Check all three spar webs for cracks at stringer pass through holes in spar webs. NOTE: To check the center web for cracks, remove sealant from around the stringer pass through holes and use a bore scope. Inspect LWR, FWD and AFT spar caps, from LH/RH W.S. 0.00 - 27.00, for corrosion. Inspect for cracks near fasteners on vertical leg of spar cap angles.	10A	Visual w/ Mirror or Borescope	10600 FH	2000 FH	N/A
*57.00.02	S.I. 10-2-1 Inspect LH/RH wing outer belly skin between main and rear spars at W.S. 27.103 for cracks running FWD and AFT. See NOTE 1.	10B	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	14000 FH	2000 FH	N/A
*57.00.03	S.I. 10-2-2 Inspect both ends of stringers along wing center section, inside belly, for cracks.	10B 10C	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	25000 FH	1000 FH	N/A
*57.00.04	S.I. 10-2-3 Inspect LH/RH wing outer belly skin near rear spar for cracks around landing light and intersecting frame at W.S. 27.103. See NOTE 2.	10D	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type B Probe	14000 FH	2000 FH	N/A
*57.00.05	S.I. 10-3 Inspect LH/RH wing angle at rear spar, W.S. 27.103 for crack in spar angle.	10E	Method 1: Visual and Penetrant Inspection or Method 2: Eddy Current Inspection Type A Probe	29000 FH	2000 FH	N/A

WINGS						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*57.00.06	S.I. 10-4 Inspect LH/RH wings at rear spar and Wing STA 27.063, rib web, adjacent to wing center section, check for crack on inboard rib.	10F	Visual & Penetrant	29000 FH	2000 FH	N/A
*57.00.07	S.I. 10-5 Inspect LH/RH wings, AFT of rear spar, Outbd of the nacelle, lower skin cutout for hydraulic lines, for cracks in skins.	10G	Visual	19000 FH	3000 FH	N/A
*57.00.08	S.I. 10-6 Perform Eddy current inspection of LH/RH wings, LWR front spar cap from RH B.L. 15 to LH B.L. 15. (See FMP57-011, Appendix C) NOTE: The 3 aluminum parts of the cap are the critical elements.	10H	Eddy Current Inspection Type D & E Probes	25000 FH	5000 FH	N/A
NOTE 1: Effective at S/N 591 and up, no inspection required. NOTE 2: SA227TT models only.						

Type A Probe: 100 to 500 KHz shielded absolute metal shaft probe similar to the NORTEC probe, stock No. 9213013. Note: This probe requires a separate cable.

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408. Note: This probe requires a separate cable (the same probe cable as above).

Type D Probe: BP-16 shielded bolt hole probe (NORTEC), or equivalent. Type E Probe: BP-16 unshielded bolt hole probe (NORTEC), or equivalent.

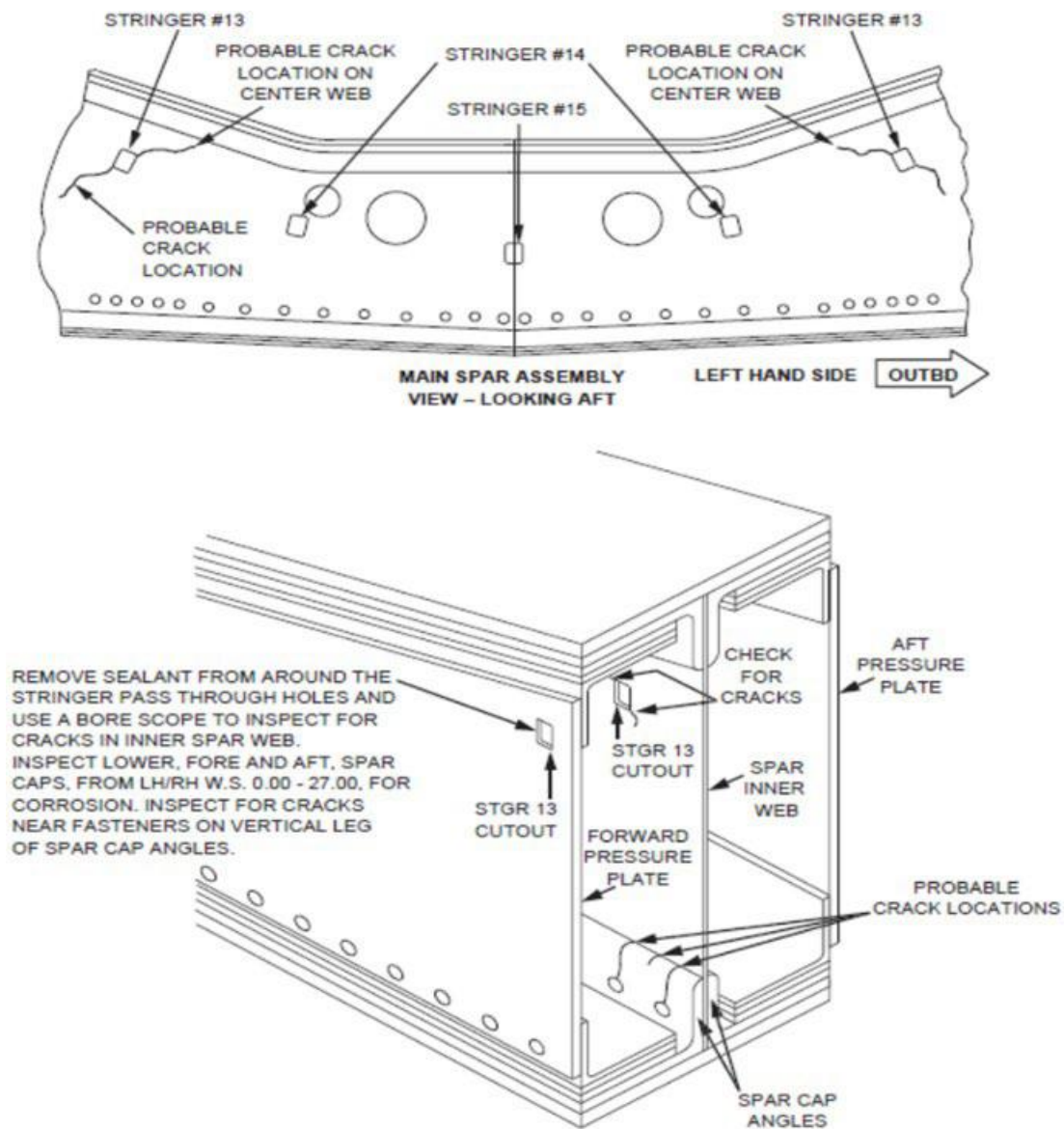


Figure 10A

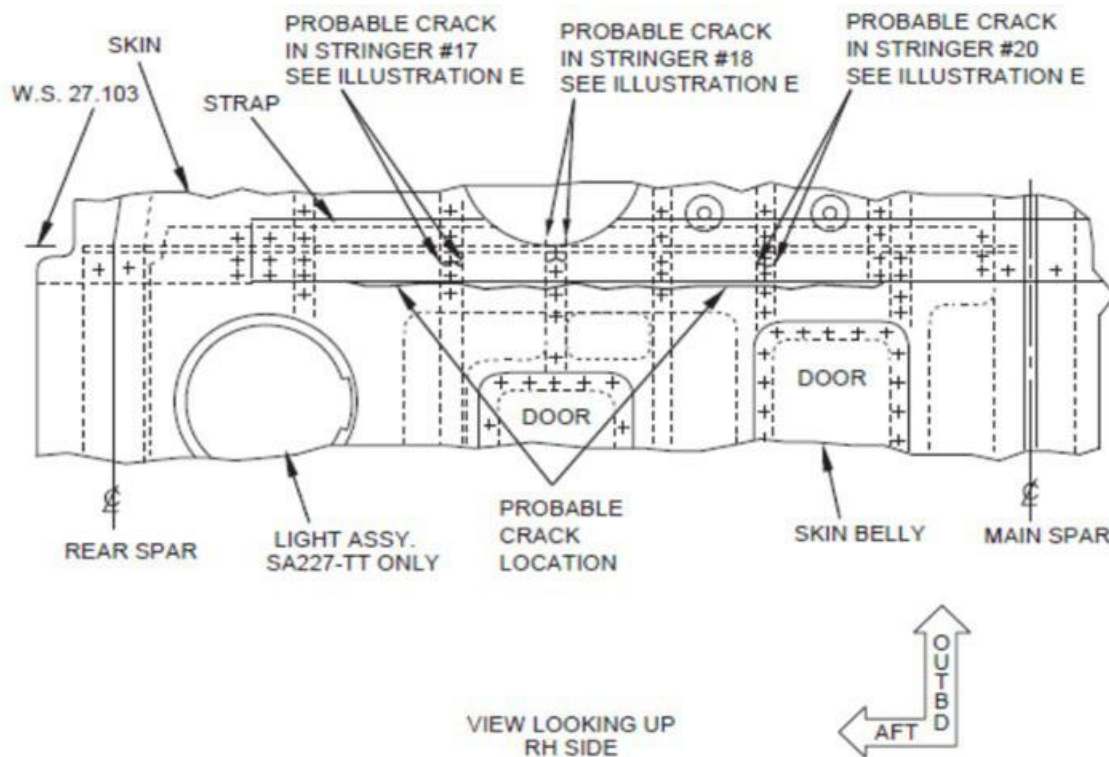


Figure 10B

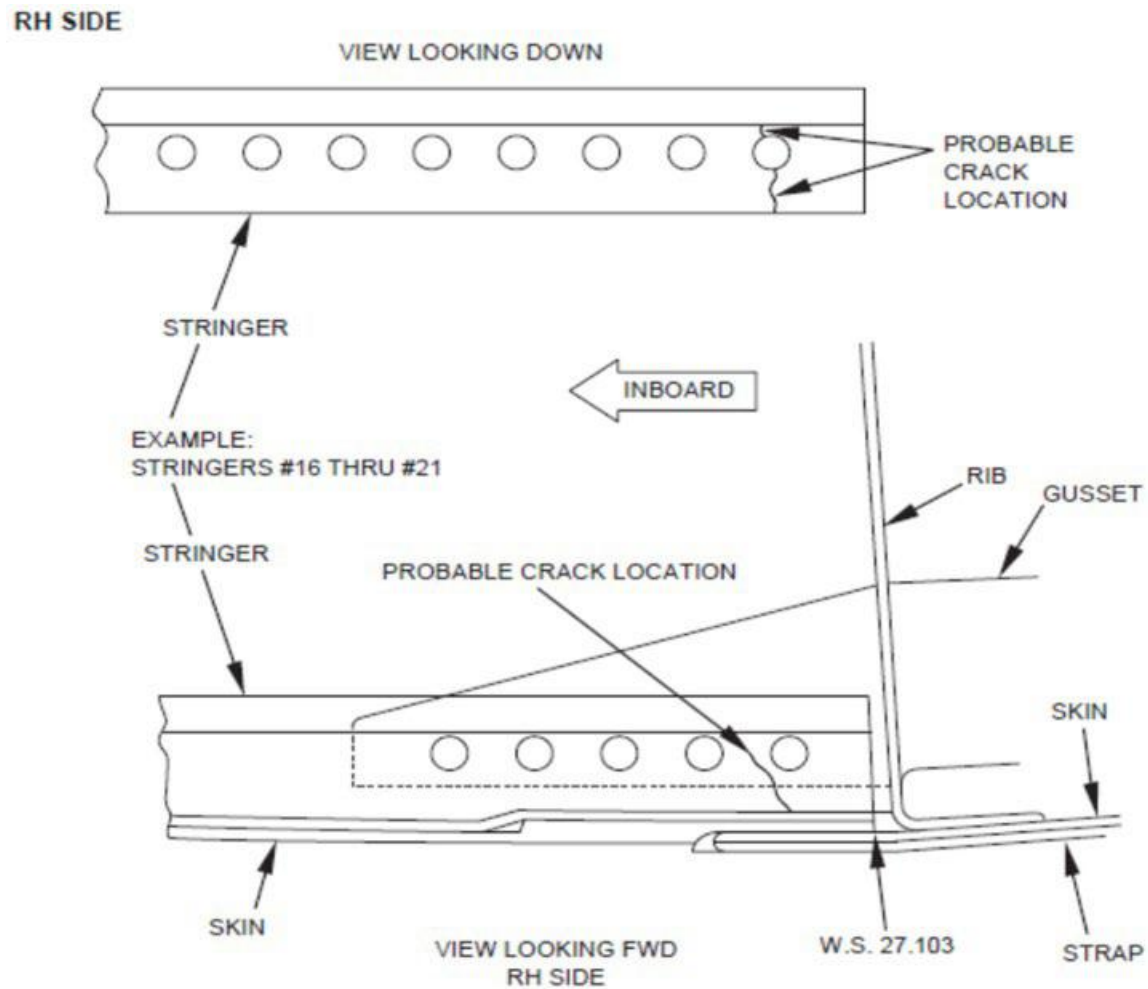


Figure 10C

SA227-TT ONLY

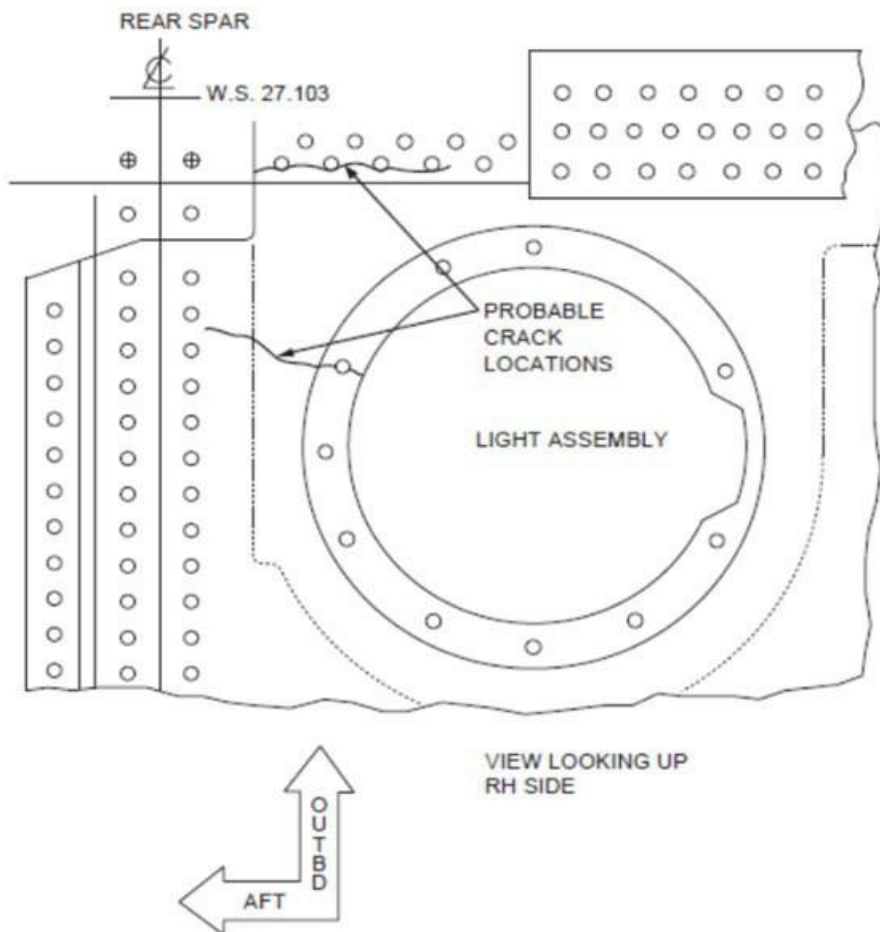


Figure 10D

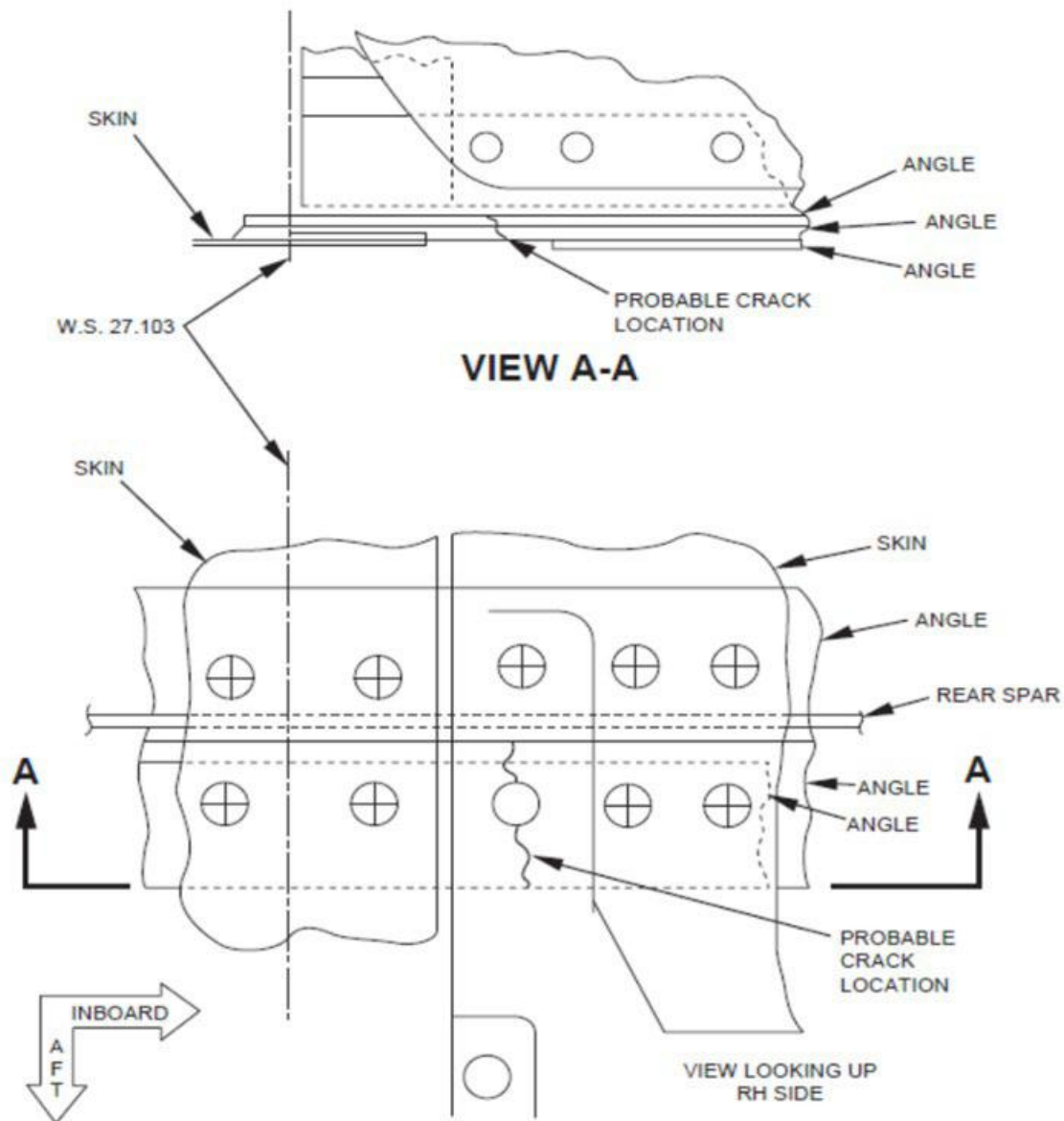


Figure 10E

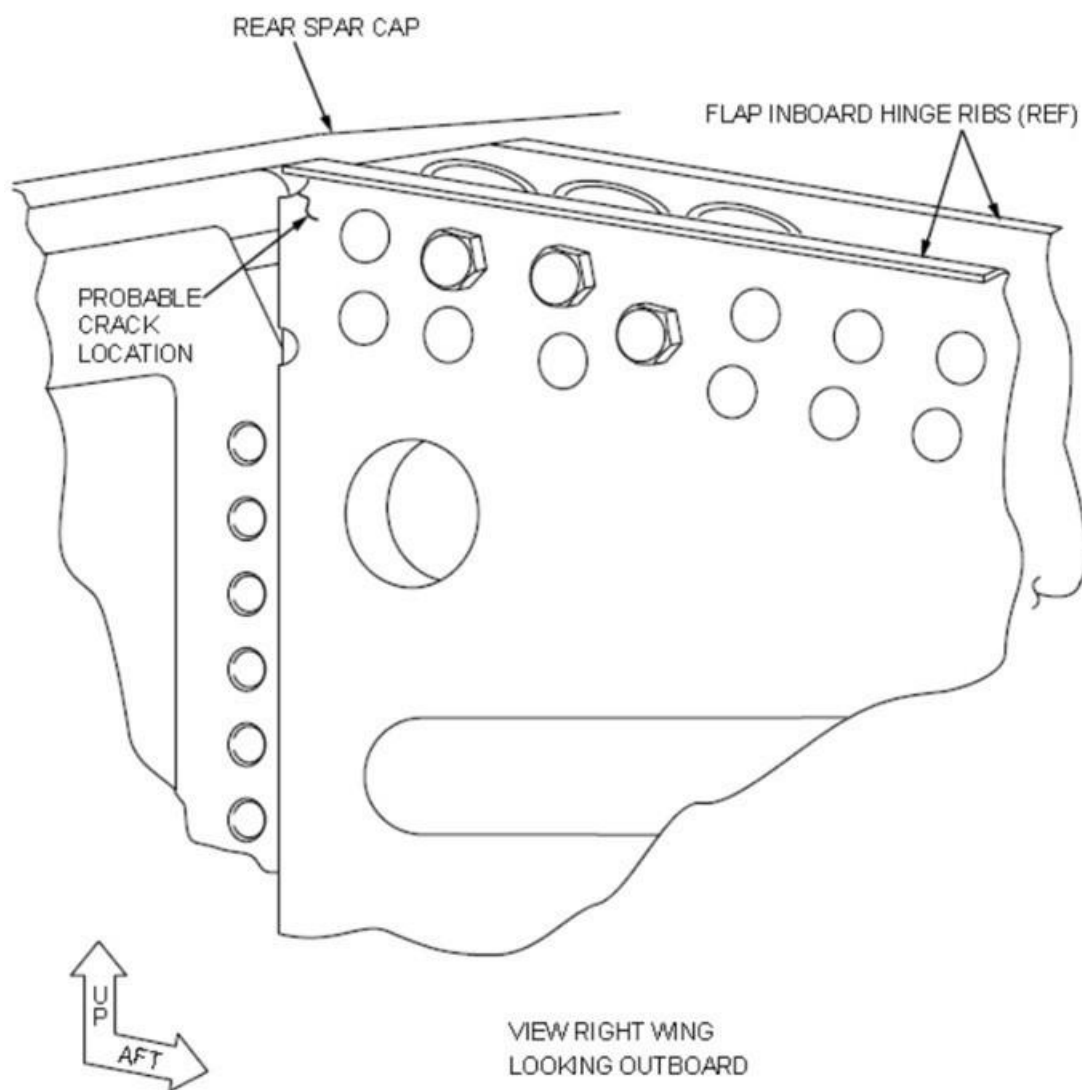


Figure 10F

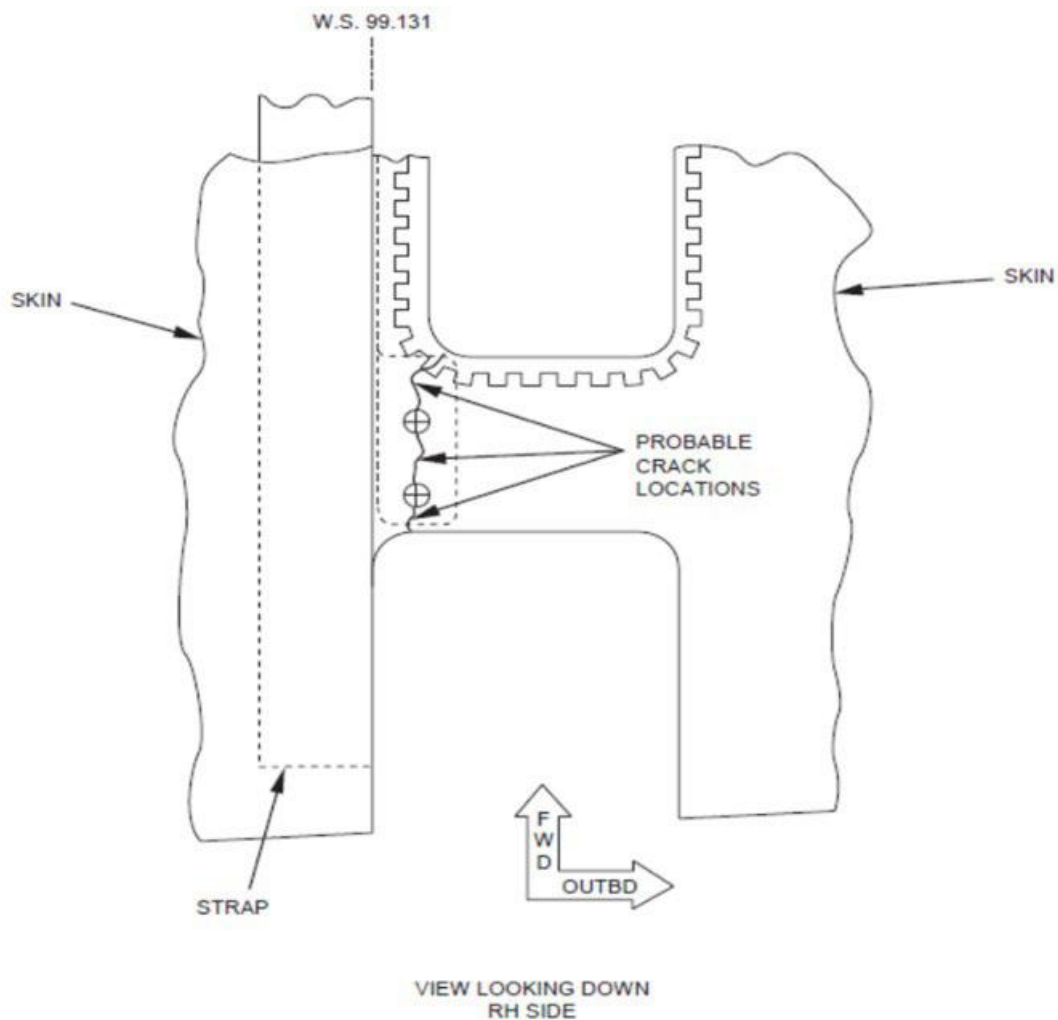


Figure 10G

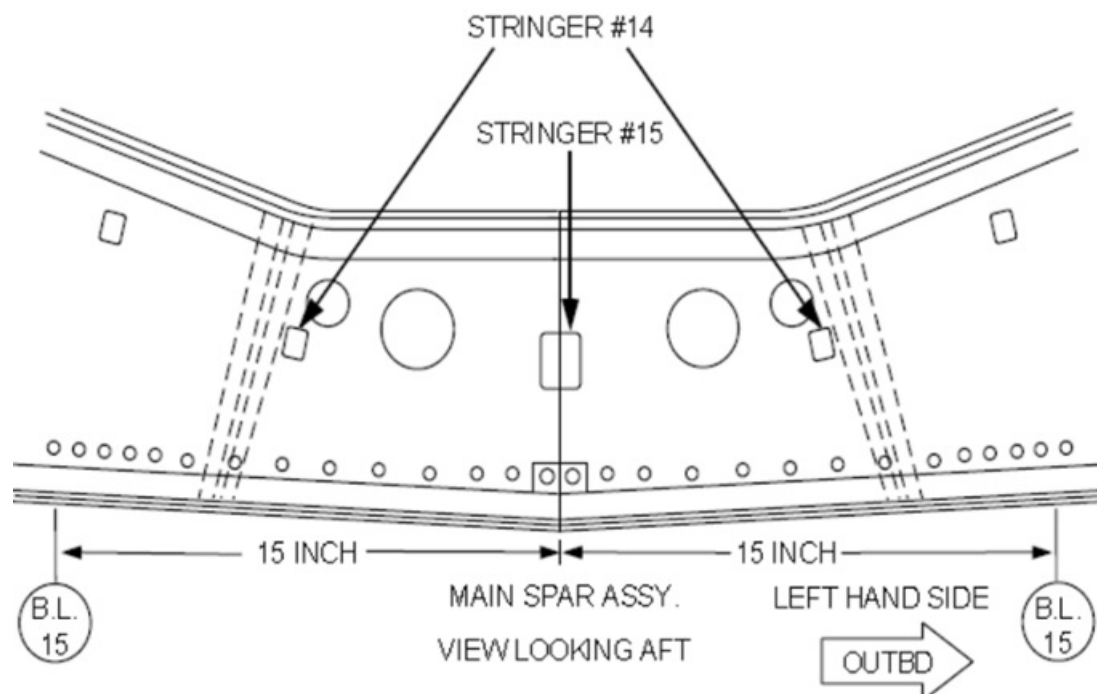


Figure 10H

CH 2.15 Main Landing Gear

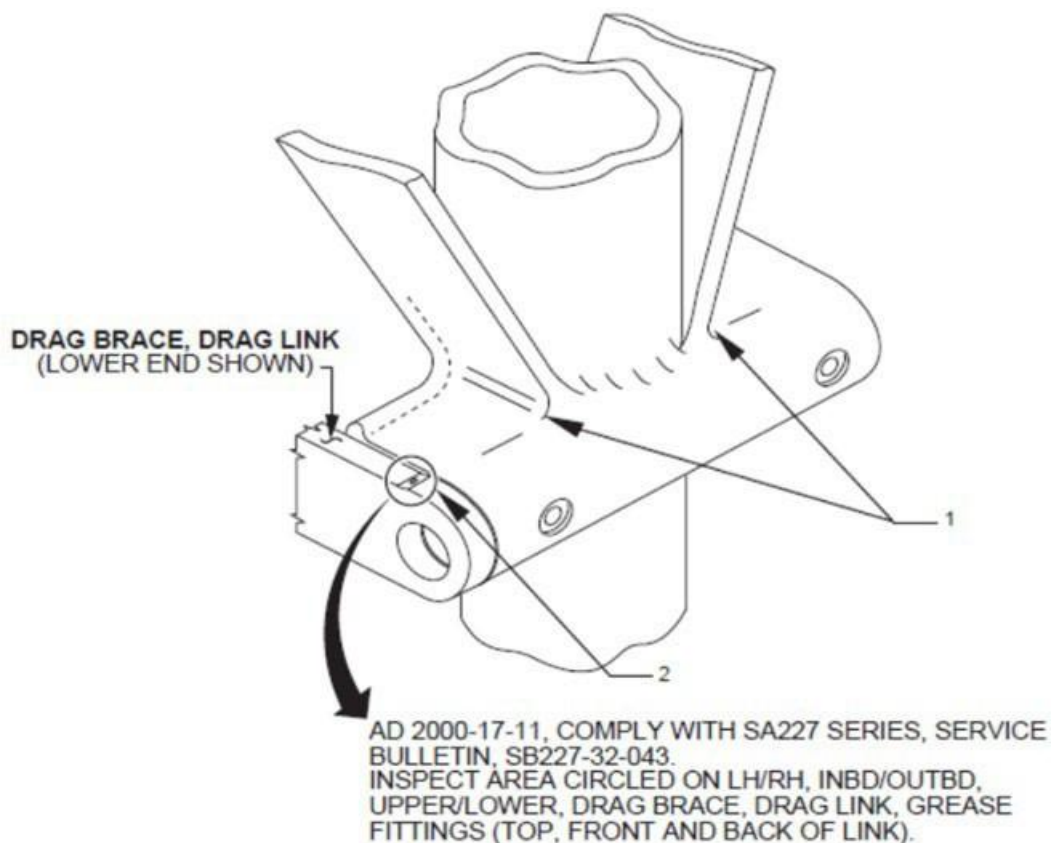


Figure 11

MAIN LANDING GEAR						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*32.10.02 L *32.10.02 R	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. Applies to P/N 5453001-1	N/A	Method 1: Visual and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B Probe	4000 FH	800 FH NOTE 1. 50 FH NOTE 2.	N/A
*32.10.03 L *32.10.03 R	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. Applies to P/N 5453001-3	N/A	Method 1: Visual and Penetrant Inspection Or Method 2: Eddy Current Inspection Type B Probe	10000 FH	800 FH NOTE 1. 50 FH NOTE 2.	N/A
*32.10.04 L *32.10.04 R	S.I. 11-2 Inspect LH/RH Main Landing Gear Drag Brace, Drag Links OZONE Industries, Inc. P/N OAS5453-1 (Revision "H", "J", "K" or "N") or P/N OAS5453-5 MLG Assembly Installed. See NOTE 3.	N/A	Visual and Penetrant	NOTE 3	NOTE 3	N/A
NOTE 1: Re-inspect at 800 flight hours if no cracks are found. NOTE 2: Re-inspect at 50 flight hours if discovered cracks are reworked as per Service Bulletin 227-32- 022. NOTE 3: Refer to Service Bulletin 227-32-043 and AD 2000-17-11 for Initial and Recurring Inspection (Hours) and Retirement Life.						

Type B Probe: 100 to 500 KHz shielded absolute pencil probe similar the NORTEC probe, stock No. 9213408. Note: This probe requires a separate cable (the same probe cable as above).

CH 2.16 Primary Control System Cables

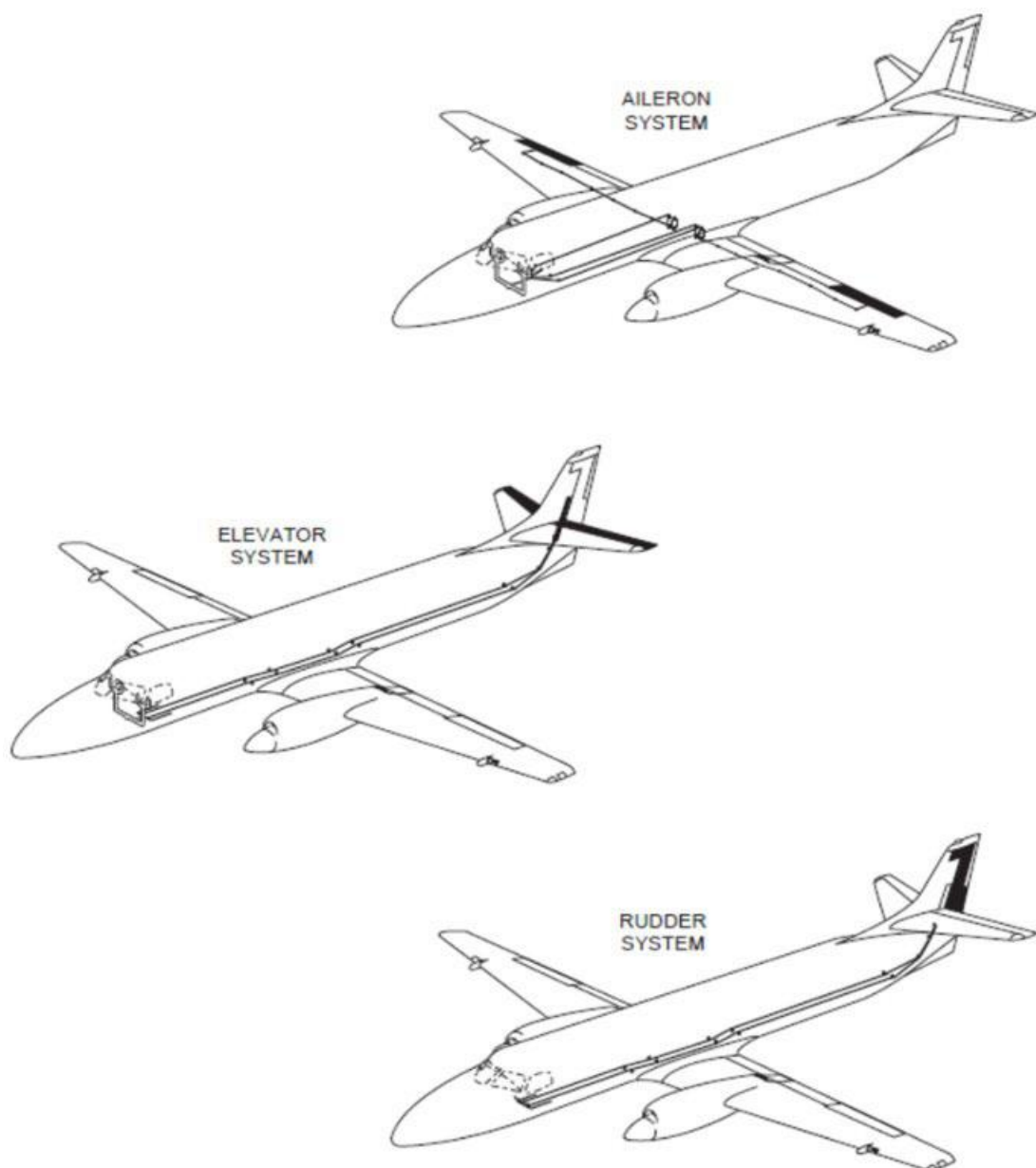


Figure 12

LIMITATIONS AND INSPECTION MANUAL

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PRIMARY CONTROL SYSTEM CABLES						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*27.00.01	S.I 12-1 Inspect All elevator, rudder, aileron, and aileron to rudder interconnect cables; including cables that are routed inside the control column.	N/A	Visual	10000 FH NOTE 1	400FH NOTE 1	NOTE 2

NOTE 1: This is the schedule specified in Airworthiness Directive 87-02-02. See the SA227 Maintenance Manual for the applicable inspection techniques.

NOTE 2: If the cables are replaced prior to 10,150 hours, the repetitive inspections are not required.

CH 2.17 Cabin Windows-Acrylic

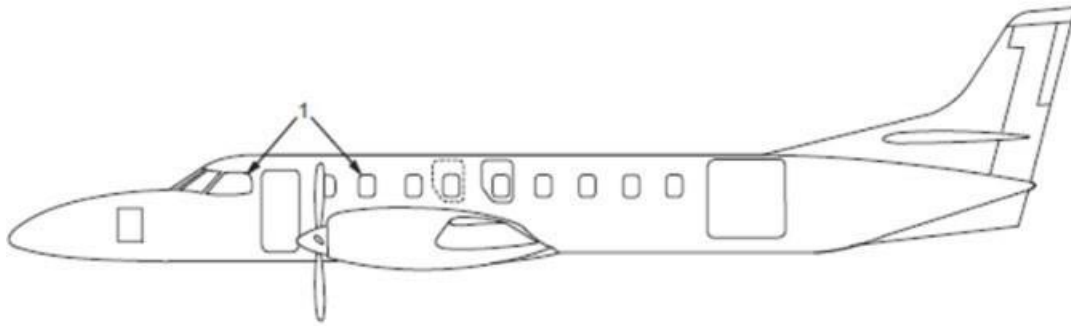


Figure 13

LIMITATIONS AND INSPECTION MANUAL

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CABIN WINDOWS -- ACRYLIC						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*56.00.01	S.I 13-1 Inspect all cabin and cockpit external single pane acrylic transparencies.	N/A	Visual NOTE 1	2500 FH or 12 MTHS	1000 FH or 12 MTHS	NOTE 2 NOTE 3
NOTE 1: Comply with service bulletins 227-56-001, 227-56-002, and 227-56-003, as appropriate. NOTE 2: Single pane cockpit side windows have a 5000 FH Life Limit. Refer to AD 96-20-08. NOTE 3: Inspect windows 10 FH to 20 FH after window replacement.						

CH 2.18 Stall Avoidance System

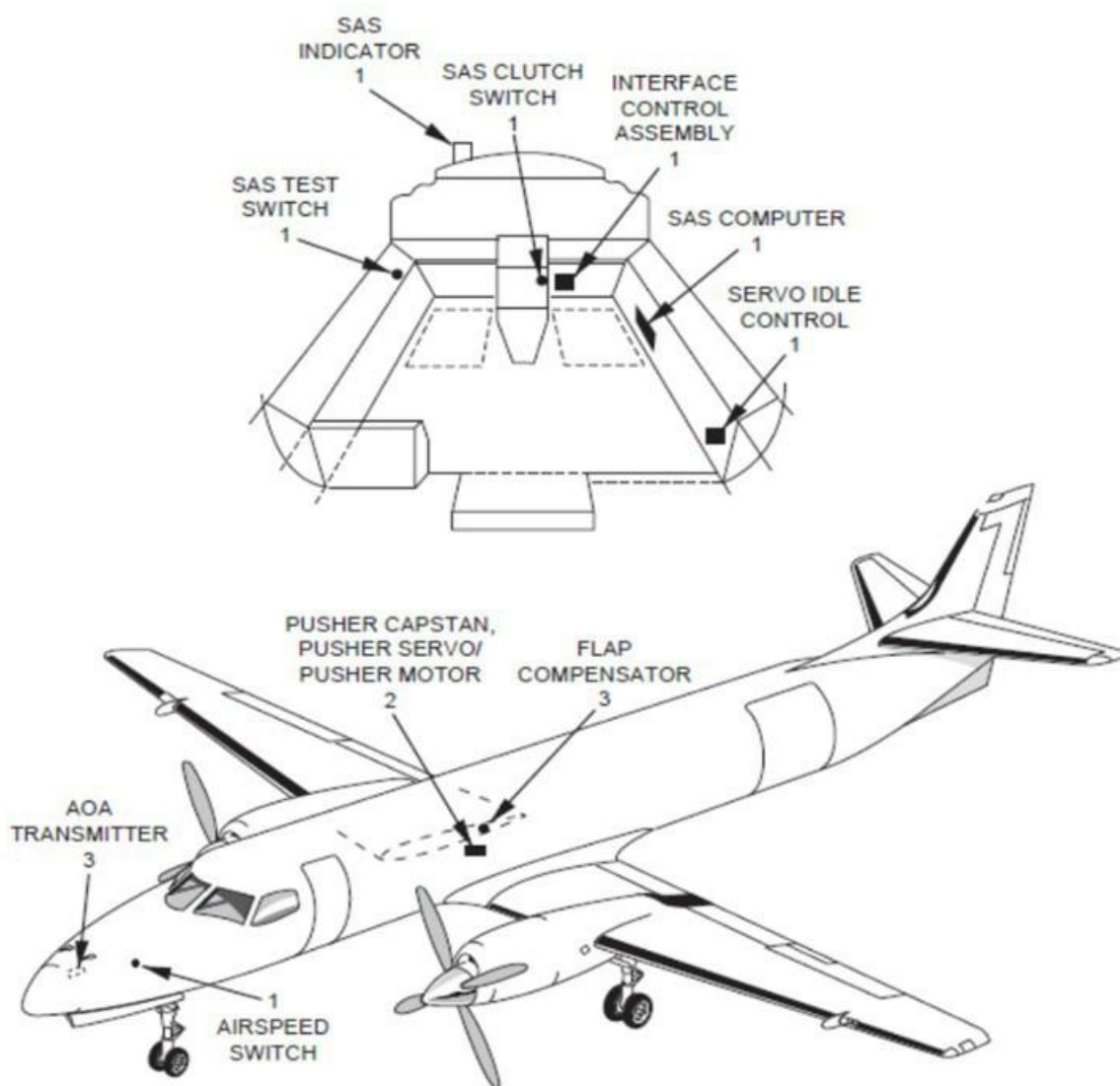


Figure 14

CH 2.19 Nacelle

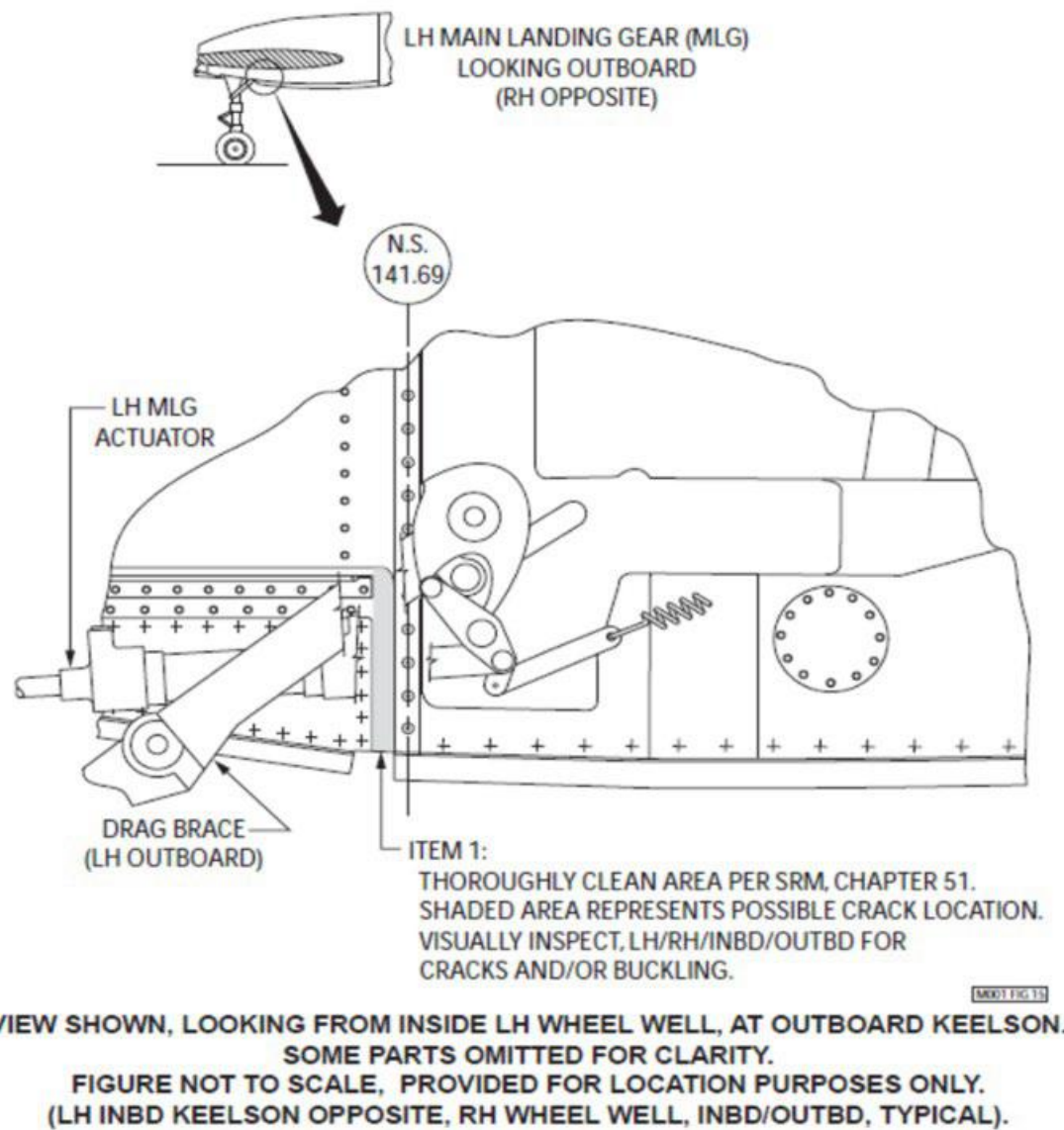


Figure 15

LIMITATIONS AND INSPECTION MANUAL

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Page Number: 2.70

NACELLE						
TASK NO	DESCRIPTION	FIGURE	INSPECTION METHOD	THRESHOLD	RECURRENT	LIFE LIMIT
*54.00.01	S.I. 15-1 Inspect LH/RH nacelle for cracks and/or bulges, Inbd and Outbd Keelson Web Skin at Nacelle Station (N.S.) 141.69. Inspect opposite side of shaded area, through existing Nacelle Access Panels of LH/RH, Inbd and Outbd Nacelle Skins, 4 places total, each Nacelle. See NOTE 2 & 3	N/A	Visual NOTE 2	5000 FH	2000 FH	N/A

NOTE 1: Remove existing LH, RH, Inbd and Outbd Nacelle Access Panels, to gain access for inspection of opposite side of Keelson Web Skins at N.S. 141.69

NOTE 2: Clean all grease, oil and foreign materials from shaded area shown in FIGURE 15, ITEM 1, Per SA226/227 Structural Repair Manual, Chapter 51.

NOTE 3: If crack(s) or Bulging are present, contact M7 Field Support Engineering at:
 Email: MetroTech@M7Aerospace.com Phone: 210-804-7792 or 210-824-9421 (Ext. 7294)

CH 2.20 Engine Airworthiness Limitations Table Format

The Engine Airworthiness Limitations inspection tasks are tabulated in the following format:

ENGINE AIRWORTHINESS LIMITATIONS			
TASK NO.	COMPONENT	PART NUMBER	LIFE LIMIT
A	B	C	D

- A. **TASK NO.** – Task number from the Engine Airworthiness Limitation Program.
 B. **COMPONENT** – Name of the Component.
 C. **PART NUMBER** – The Part Number of the Component.
 D. **LIFE LIMIT** – The Maximum number of Flight Hours or Cycles on the part before required replacement.

CH 2.21 Engine and Propeller Airworthiness Limitations

This section lists the engine Component life limits specified below must be observed. Time Limitations have been compiled from Service Bulletins TPE331-72-0180, TPE331-72-0117 and TPE331-72-0019.

ENGINE AND PROPELLER AIRWORTHINESS LIMITATIONS			
TASK NO.	COMPONENT	PART NUMBER	LIFE LIMIT
*61.10.01	Dowty Propeller Overhaul	R321/4-82-F/8	5000 HRS or 120 MTHS
*61.10.03	MT Propeller Overhaul	MTV-27-1-E-C-F-R(G)	3600 HRS or 72 MTHS
*72.00.01	Engine Overhaul or CAM Inspection	TPE331-11U	7000 HRS ± 100 HRS
*72.30.05	1st Stage Compressor Impeller	3107110-1, -2, -4, -5, -6	9600 Cycles
*72.30.06	1st Stage Compressor Impeller	3108182-2	30000 Cycles
*72.30.07	1st Stage Compressor Impeller	896223-3, -7	No Life Limit
*72.30.10	2nd Stage Compressor Impeller	3108387-1	30000 Cycles
*72.30.11	2nd Stage Compressor Impeller	3107167-1, -2, -3, -4, -5	10500 Cycles
*72.30.12	2nd Stage Compressor Impeller	893482-2, -3, -5	11500 Cycles NOTE 1
*72.50.01	Seal Plate	3101519-4	20000 Cycles
*72.50.02	Seal Plate	3102483-1	20000 Cycles
*72.50.11	1st Turbine Rotor	3101520-1, -2	10000 Cycles
*72.50.12	1st Turbine Rotor	3101520-3, -4	20000 Cycles
*72.50.13	1st Turbine Rotor	3107079-1	20000 Cycles
*72.50.21	2nd Turbine Rotor	3102106-1, -6, -8	4800 Cycles
*72.50.22	2nd Turbine Rotor	3102106-7	9600 Cycles
*72.50.23	2nd Turbine Rotor	3102106-9, -10	15000 Cycles
*72.50.24	2nd Turbine Rotor	3107077-1	9600 Cycles
*72.50.31	3rd Turbine Rotor	3102655-1	4800 Cycles

NOTE 1: From effective date of AD2016-18-17. (AD Effective Date: 11/04/2016)

CH 2.22 Engine Bearings

This section lists the engine bearing Recommended Service life limits. The Recommended Time Limitations have been compiled from Service Bulletin TPE331-72-0180.

NOTE 1: Only this On-Condition bearing is being tracked by this program to ensure traceability, in an event it is installed in a life limited position.

ENGINE BEARING RECOMMENDED SERVICE LIFE			
TASK NO.	COMPONENT	PART NUMBER	LIFE LIMIT
72.10.20	Compressor Bearing (Pre TPE331-72-0634)	3101405-1	6000 Hours ± 100 Hours
72.10.21	Compressor Bearing (Post TPE331-72-0634)	3103708-1	9000 Hours ± 100 Hours
72.10.22	Acc. Gear Bearing (Pre TPE331 -72-0362)	358893-1	At O/H or CAM Inspection
72.10.23	Acc. Gear Bearing (Post TPE331 -72-0362)	3103035-1	At O/H or CAM Inspection
72.10.24	Acc. Gear Bearing	3103585-1	9000 Hours ± 100 Hours
72.10.25	Drive Idler Housing Bearing (Pre TPE331 -72-0362)	358893-1	At O/H or CAM Inspection
72.10.26	Drive Idler Housing Bearing (Post TPE331 -72-0362)	3103035-1	At O/H or CAM Inspection
72.10.27	Drive Idler Housing Bearing	3103585-1	9000 Hours ± 100 Hours
72.10.28	Direct Drive Fuel Control First Idler Bearing	3108041-2	14000 Hours ± 100 Hours
72.10.29	Turbine Roller Bearing (Pre TPE331-72-2054 & TPE331-72-0700)	3101092-1	3500 HRS ± 100 HRS
72.10.30	Turbine Roller Bearing (Pre TPE331-72-2054 & Post TPE331-72-0700)	3101092-2	3500 HRS ± 100 HRS
72.10.31	Turbine Roller Bearing (Post TPE331-72-2054)	3108098-1	9000 Hours ± 100 Hours
72.10.32	Starter Generator Gearshaft Bearing (FWD)	358206	9000 Hours ± 100 Hours
72.10.33	Starter Generator Gearshaft Bearing (AFT)	358206	9000 Hours ± 100 Hours
72.10.34	Starter Generator Idler Bearing	358272	9000 Hours ± 100 Hours
72.10.35	Hyd. Pump Gearshaft Bearing (FWD)	358272	9000 Hours ± 100 Hours
72.10.36	Hyd. Pump Gearshaft Bearing (AFT)	358272	9000 Hours ± 100 Hours
72.10.37	Tach. Generator Shaft Bearing	358272	On-Condition NOTE 1
72.10.38	Tach. Generator Shaft Bearing	358894-1	9000 Hours ± 100 Hours

CH 2.23 Supplemental Inspections

Additional inspections and modifications are available to extend the life of the aircraft to a maximum of 50,000 flight hours. These inspections only apply to aircraft which have the life extension accomplished or aircraft that are candidates for the life extension. These tasks will be implemented at the discretion of the Chief Inspector.

Reference Chapter 7 – Supplemental Inspection Program for further details regarding these inspections.

CH 3: Out of Phase Inspections

CH 3.1 Scope

This chapter provides all out of phase maintenance tasks and intervals related to aircraft systems and components including APU, Engines and Propellers.

CH 3.2 ATA SPECIFICATION 100- Assigned subject number and Titles

20- Standard Practices Airframe	51-Structures
21- Air Conditioning	52-Doors
22- Auto Flight	53-Fuselage
23- Communications	54-Nacelle
24-Electrical Power	55-Stabilizers
25- Equipment & Furnishing	56-Windows
26- Fire Protection	57-Wings
27- Flight Controls	61-Propeller
28-Fuel	71-Powerplant
29-Hydraulic Power	72-Engine
30-Ice and Rain Protection	73- Engine Fuel & Control
31-Instruments	74- Engine Ignition
32-Landing Gear	75- Engine Air
33-Lights	76- Engine Controls
34-Navigation	77- Engine Indicating
49-APU	78- Engine Exhaust
	79-Engine

CH 3.3 Maintenance Task Classification, Description, and Intervals

The tasks listed on the following pages identify and describe all scheduled maintenance tasks for the SA227.

The tasks will be tracked by the Company software program, or other convenient tracking and scheduling means. See Company GMM and GOM for specific details.

Task frequencies are given in flight hours (FH), flight (operational) cycles (FC), calendar time (MTH or YRs), and hours (HRS) for time between overhauls.

The periodic inspections of certain components are determined by their manufacturers.

Where tasks are allocated dual frequencies, they must be accomplished at whichever period occurs first. The objective of the MSI tasks is to prevent deterioration of the inherent safety and reliability of the equipment.

We have also included items in this chapter that are only a recommendation, as outlined in the SA227 Maintenance Manual Time Limitations Section, which can be adjusted based on TNA's experience and environment. The items that are recommended and not mandatory are identified with an (Δ) next to the task number.

CH 3.4 Out of Phase Inspections Table Format

The Out of Phase inspection tasks are tabulated in the following format:

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
A	B	C	D

A. **TASK NO.** – Task reference number.

B. **DESCRIPTION** – Brief Description of the task to be done.

C. **THRESHOLD** – Threshold. The maximum interval since new at which the first inspection should be carried out.

D. **REPEAT INTERVAL** – The maximum interval between inspections

CH 3.5 Out of Phase Inspections

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 05 - Time Limits/Maintenance Checks			
05.00.00	Perform 50 FH SRL Check NOTE: This Inspection is performed by the Flight Crew every 50 Flight Hours.	50 FH	
05.00.10	Avionics Inspection See Form 504	12 MTHS	
ATA 08 - Leveling & Weighing			
08.00.01	Aircraft Weight and Balance	36 MTHS	
ATA 21 - Air Conditioning			
Δ 21.30.05	Replace Outflow Valve Filter NOTE: Applicable to P/N CU79029	1000 FH	
Δ 21.30.10	Replace Pressurization Controller External Filter NOTE: Applicable to P/N CU79030	1000 FH	
Δ 21.30.11	Clean or Replace Pressurization Controller Internal Filter	1000 FH	
21.50.01	LH/RH Cooling Turbine Lube	200 FH	
21.55.01	Power Motor Assembly Overhaul NOTE 1: Applicable to Zee Systems, Inc. Motor NOTE 2: Applicable to P/N SZ84 Series	750 HRS (AC Hobbs Meter)	
21.55.02	Vapor Cycle Condenser Brush Inspection NOTE 1: Applicable to Zee Systems, Inc. Condenser NOTE 2: Applicable to P/N P15D6573	250 HRS (AC Hobbs Meter)	
21.55.03	Power Motor Assembly Brush Inspection NOTE 1: Applicable to Zee Systems, Inc. Motor NOTE 2: Applicable to P/N SZ58 Series	1000 HRS (AC Hobbs Meter)	
21.55.04	Power Motor Assembly Overhaul NOTE 1: Applicable to Zee Systems, Inc. Motor NOTE 2: Applicable to P/N SZ58 Series	2000 HRS (AC Hobbs Meter)	
21.55.05	Enviro Systems Air Conditioning System Check 1 NOTE 1: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed. NOTE 2: IAW TNA SA227 CAMP Form 702	500-800 FH	
21.55.06	Enviro Systems Air Conditioning System Check 2 NOTE 1: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed. NOTE 2: IAW TNA SA227 CAMP Form 703	800-1000 FH	
21.55.07	Air Conditioning Compressor Motor Bearing Inspection NOTE: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed.	1000-1500 FH	
21.55.08	Air Conditioning Condenser Blower Motor Bearing Inspection NOTE: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed.	1000-1500 FH	
21.55.09	Air Conditioning Compressor Motor Overhaul and bearing Replacement NOTE: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed.	2500-3000 FH	
21.55.10	Air Conditioning Condenser Blower Motor Overhaul and bearing Replacement NOTE: Applies only to aircraft with Enviro Systems (AAR Oklahoma) Air Conditioning System installed.	2500-3000 FH	
Δ 21.70.01	Clean Forward Evaporator Filter	150 FH	
Δ 21.70.02	Clean Aft Evaporator Filter	150 FH	
ATA 23 - Communications			
23.70.01	Cockpit Voice Recorder Overhaul NOTE: Applicable to P/N A100	9000 FH	
23.70.02	Replace CVR ULB NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N DK100 or DK120	6 YRS	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
23.70.03	Clean and Test CVR ULB NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N DK100 or DK120	2 YRS	
23.70.04	Inspect CVR ULB NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N DK100 or DK120	12 MTHS	
23.70.05	Inspect CVR Audio System NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N 89090	12 MTHS	
23.70.06	Replace CVR Tape NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N 89090	1500 FH	
23.70.07	CVR Overhaul NOTE 1: Applicable to B&D CVR Only NOTE 2: Applicable to P/N 89090	5000 FH	
ATA 24 - Electrical Power			
Δ 24.00.01 L	Inspect Starter Generator Brushes	500 FH	
Δ 24.00.01 R	Inspect Starter Generator Brushes	500 FH	
24.00.56	Replace Bus Tie Switches NOTE 1: Applicable to P/N 8781-K11 & AN3230-2 NOTE 2: For aircraft Bus Tie Switches with more than 16,000 hours' it is permissible to fly the aircraft up to 1000 additional hours; provided it meets the requirements of SB 227-24-021. NOTE 3: Refer to SB227-24-021	16000 FH	
24.30.01 L	Starter Generator Overhaul NOTE: Applicable to P/N 23079 Series	1000 FH	
24.30.01 R	Starter Generator Overhaul NOTE: Applicable to P/N 23079 Series	1000 FH	
24.30.02 L	Starter Generator Overhaul NOTE: Applicable to P/N 300SG Series	1000 FH	
24.30.02 R	Starter Generator Overhaul NOTE: Applicable to P/N 300SG Series	1000 FH	
24.30.03 L	Starter Generator Overhaul NOTE: Applicable to P/N 27-62208 Series	1000 FH	
24.30.03 R	Starter Generator Overhaul NOTE: Applicable to P/N 27-62208 Series	1000 FH	
Δ 24.30.04 L	Battery Life Limit NOTE: Applicable to Lead Acid Only	18 MTHS or 1000 FH	
Δ 24.30.04 R	Battery Life Limit NOTE: Applicable to Lead Acid Only	18 MTHS or 1000 FH	
Δ 24.30.05 L	Battery Capacitance Check -If over 75% Retest each 3 months NOTE: Applicable to Lead Acid Only	12 Months or 600 Hours	
Δ 24.30.05 R	Battery Capacitance Check -If over 75% Retest each 3 months NOTE: Applicable to Lead Acid Only	12 Months or 600 Hours	
24.30.06 L	Battery Capacitance Check NOTE: Applicable to Nicad Only	600 FH	
24.30.06 R	Battery Capacitance Check NOTE: Applicable to Nicad Only	600 FH	
Δ 24.30.07	LH/RH Essential & Junction Box Bus Terminal Inspection & Bus Wire Inspection	500 FH	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 25 - Equipment & Furnishings			
25.00.00	Annual First Aid Kit inspection	12 MTH	
25.00.01	Passenger Life Vest Annual Inspection	12 MTH	
25.00.02	Pilot Life Vest Annual Inspection	12 MTH	
25.00.03	Co-Pilot Life Vest Annual Inspection	12 MTH	
25.00.04	Replace ELT Battery.	Refer to Expiration date on Battery Pack	
25.00.05	Inspect Emergency Locator Transmitter for condition IAW FAR 91.207. NOTE: IAW C406 Series Instructions for Continued Airworthiness	12 MTH	
25.20.00	Passenger Life Vest Overhaul	5 YRS	
25.20.01	Cargo Net/Compartment Inspection NOTE: Only applicable to aircraft in Cargo Configuration	12 MTH	
25.25.11	Emergency Phosphorescent Sign Annual Inspection	12 MTH	
ATA 26 - Fire Protection			
26.00 CPIT	Perform Monthly Portable Fire Extinguisher Inspection	1 MTH	
26.00 FWD	Perform Monthly Portable Fire Extinguisher Inspection	1 MTH	
26.20.02 CPIT	Perform Weight Check of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	12 MTH	
26.20.03 CPIT	Perform Recharge of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	IAW National Requirements	
26.20.04 CPIT	Perform Hydrostatic Test of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	IAW National Requirements	
26.20.02 FWD	Perform Weight Check of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	IAW National Requirements	
26.20.03 FWD	Perform Recharge of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	IAW National Requirements	
26.20.04 FWD	Perform Hydrostatic Test of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N 1211	IAW National Requirements	
26.20.05 CPIT	Perform Weight Check of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.06 CPIT	Perform Recharge of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.07 CPIT	Perform Hydrostatic Test of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.05 FWD	Perform Weight Check of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.06 FWD	Perform Recharge of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.07 FWD	Perform Hydrostatic Test of Hand Held (Halon) Fire Extinguisher NOTE: Applicable to P/N RT A1200	IAW National Requirements	
26.20.51 L	Engine Fire Extinguisher Bottle Hydrostatic NOTE: Applicable to P/N 30300020, 30301100, 24600-1, 24600-2	5 YRS	
26.20.51 R	Engine Fire Extinguisher Bottle Hydrostatic NOTE: Applicable to P/N 30300020, 30301100, 24600-1, 24600-2	5 YRS	
26.20.52 L	Replace Engine Fire Bottle Cartridge NOTE: P/N 13083-5 cartridge life is 6 Years Storage, 9 Years Maximum Life. P/N M13083-5 cartridge life is 10-years total (any combination of storage and service). P/N AE13083-5 cartridge life is 10-years total (any combination of storage and service).	NOTE	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
26.20.52 R	Replace Engine Fire Bottle Cartridge NOTE: P/N 13083-5 cartridge life is 6 Years Storage, 9 Years Maximum Life. P/N M13083-5 cartridge life is 10-years total (any combination of storage and service). P/N AE13083-5 cartridge life is 10-years total (any combination of storage and service).	NOTE	
26.20.53 L	Replace Engine Fire Bottle Cartridge NOTE 1: Applicable to P/N 30600-22 NOTE 2: 8 Years Storage, 10 Years Maximum Life	NOTE 2	
26.20.53 R	Replace Engine Fire Bottle Cartridge NOTE 1: Applicable to P/N 30600-22 NOTE 2: 8 Years Storage, 10 Years Maximum Life	NOTE 2	
26.20.54	Annual Inspection of Engine and Wheelwell Fire Detectors NOTE: IAW SB227-26-004.	12 MTH	
ATA 27 - Flight Controls			
27.00.00	Replace Primary Flight Control Cables	10000 FH	
*27.00.01	S.I 12-1 Inspect All elevator, rudder, aileron, and aileron to rudder interconnect cables; including cables that are routed inside the control column. NOTE: If the cables are replaced prior to 10150 hours, the repetitive inspections are not required.	400 FH NOTE	
*27.30.06	S.I. 14-1 Stall Avoidance System Visual Inspection	250 FH	
*27.30.07	S.I. 14-2 Visual and Functional Check Stall Avoidance System Pusher Servo	500 FH	
*27.30.08	S.I. 14-3 Re-calibrate Stall Avoidance System	2000 FH	
*27.30.11	S.I. 9-2 Inspect Elevator down spring for wear and broken cable wires.	5000 FH	
27-31-01	S.I.D. SA226/227 Control Column Roller Bearing Replacement. NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
Δ 27.00.02	Perform Tension Check of Primary and Trim Flight Control Cables NOTE: Initially 200 FH and 500 FH, then every 1,000 FH	NOTE	
27.20.01	Replace FWD Rudder Cable Attachment Bolt at Rudder Pedal Arm NOTE: Applicable to P/N NAS1103-6D, AN23-12 and NAS72-3-003.	5000 FH	
27.30.02	Replace Control Column Pivot Bearing NOTE 1: Applicable to P/N CF-5/8-S; CRS-10-1; MS21440-102 NOTE 2: For aircraft with more than 10,000 hours' time in service, it is permissible to fly the aircraft up to 500 additional hours; Provided it passes the inspection requirements of AD 97-02-02. NOTE 3: Control Column Pivot Bearing Configuration modification IAW SB 227-27-042 terminates the repetitive replacement of the control column pivot bearing and the repetitive nut torque check. NOTE 4: Refer to SB 227-27-041 and AD2015-19-10	10000 FH	N/A
27.30.03	Perform Torque Check of Control Column Pivot Bearing NOTE 1: Applicable to P/N MS21044N4 & MA21042L4 NOTE 2: Refer to SB 227-27-041, 227-27-042 and AD2015-19-10	10000 FH	N/A
27.30.04	Modify Control Column Pivot Bearing Configuration NOTE: Refer to SB 227-27-042 and AD2015-19-10	10000 FH	N/A
27.30.05	Replace Elevator Rod to Walking Beam Attachment Bolt and associated Hardware. NOTE: Refer to SB 227-27-041 and AD2015-19-10	10000 FH	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
27.10.01	Replace Aileron Control Column Chain NOTE 1: Applicable to P/N 27-71026-001 NOTE 2: The P/N 27-71026-001 Aileron Control Chain is a section of the aileron control cable assembly (P/N 27-70001-011 for AC, AT and BC models; P/N 27-70002-011 for TT model). Replacement of these aileron control cable assemblies (2 per aircraft) satisfies this chain replacement requirement as long as they are replaced at the interval stated for the chain. NOTE 3: Refer to SB 227-27-054 and AD2014-09-02.	10000 FH or 13 YRS	
27.10.02	Replace Aileron Control Column Sprocket NOTE 1: Applicable to P/N 26-71010-001; 26-71010-003 NOTE 2: This interval is subsequent to the initial compliance threshold detailed in Service Bulletin 227-27-054. NOTE 3: Refer to AD2014-09-02.	10000 FH or 13 YRS	
27.10.03	Replace Aileron Control Column Bearing NOTE 1: Applicable to P/N KP16B; MS27642-16 NOTE 2: This interval is subsequent to the initial compliance threshold detailed in Service Bulletin 227-27-054. NOTE 3: Refer to AD2014-09-02.	10000 FH or 13 YRS	
27.30.09	Inspect Elevator Down Spring NOTE 1: Applicable to P/N 27-44045-005 NOTE 2: Applies to SA227AC, S/N 406, 415, 420 - 473; SA227AT, S/N 423-469. NOTE 3: Refer to AD93-09-05	300 FH	
27.40.01	Perform Travel Check (time) of Pitch Trim Actuator	400 FH	
27.40.03	Inspect/Check freeplay and Measure Rod Slippage of Pitch Trim Actuator NOTE 1: Applicable to P/N DL5040M5 (Original & if P/N AA56142 Nut Assemblies Not Replaced) NOTE 2: Refer to SA227-SL-011 and AD2007-16-03.	3000 FH	250 FH
27.40.04	Pitch Trim Actuator Overhaul NOTE 1: Applicable to P/N DL5040M5 (Original & if P/N AA56142 Nut Assemblies Not Replaced) NOTE 2: Refer to AD2007-16-03.	5000 FH	
27.40.05	Inspect/Check freeplay and Measure Rod Slippage of Pitch Trim Actuator NOTE 1: Applicable to P/N DL5040M5 (Replacement & if P/N AA56142 Nut Assemblies Replaced) NOTE 2: Refer to SA227-SL-011 and AD2007-16-03.	5000 FH	300 FH
27.40.06	Pitch Trim Actuator Overhaul NOTE 1: Applicable to P/N DL5040M5 (Replacement & if P/N AA56142 Nut Assemblies Replaced) NOTE 2: Refer to AD2007-16-03.	6500 FH	
27.40.07	Inspect/Check freeplay and Measure Rod Slippage of Pitch Trim Actuator NOTE 1: Applicable to P/N DL5040M6 NOTE 2: Refer to SA227-SL-011 and AD2007-16-03.	7500 FH	300 FH

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
27.40.08	Pitch Trim Actuator Overhaul NOTE 1: Applicable to P/N DL5040M6 NOTE 2: Refer to AD2007-16-03.	6000 FH	
27.40.09	Inspect/Check freeplay and Measure Rod Slippage of Pitch Trim Actuator NOTE 1: Applicable to P/N DL5040M8 NOTE 2: Refer to SA227-SL-011 and AD2007-16-03.	7500 FH	300 FH
27.40.10	Pitch Trim Actuator Overhaul NOTE 1: Applicable to P/N DL5040M8 NOTE 2: Refer to AD2007-16-03.	6000 FH	
27.40.11	Inspect & Check (Mech., Elec. Stops Function) of Pitch Trim Actuator NOTE 1: Applicable to P/N 27-19008-001-002, -004, -005 NOTE 2: Refer to SA227-SL-011 and AD2007-16-03.	300 FH	
27.40.12	Pitch Trim Actuator Overhaul NOTE 1: Applicable to P/N 27-19008-006; 27-19008-007 NOTE 2: Refer to AD2007-16-03.	2000 FH	
27.40.13	Pitch Trim Actuator Overhaul NOTE: Applicable to P/N DL5040M2-3	1200 FH	
27.40.14	Pitch Trim Actuator Overhaul NOTE: Applicable to P/N DL5040M2-4	2000 FH	
27.40.15	Pitch Trim Actuator Overhaul NOTE: Applicable to P/N DL5040M2-6	2000 FH	
27.70.20	Rudder Gust Lock Assembly Life Limit NOTE 1: Applicable to P/N 27-70066-001 NOTE 2: Refer to SB 227-27-048	5000 FH	
ATA 29 - Hydraulic Power			
29.00.01	Hydraulic Power Pack Overhaul NOTE: Applicable to P/N 27-81009-015	15000 FH	
29.00.02	Gear Selector Valve Overhaul NOTE: Applicable to P/N 24600-6	7500 FH	
Δ 29.10.06	Replace Hydraulic System Filter NOTE: Applicable to P/N AN6235-3A	450 FH	
ATA 31 - Indicating/Recording Systems			
31.00.01	Perform CVR ULB Periodic Check and Cleaning NOTE: IAW TNA Maintenance Order DK100/120 Cleaning and Testing	24 MTH	
31.00.02	CVR ULB Beacon Life	6 YRS	
ATA 32 - Landing Gear			
32.00.01	Clean and Lubricate all Main and Nose Gear Grease Fittings, Rollers, Rod Ends, Uplock Hooks, Positioning Cams Strikers and Door Hinges	300 FH	
Δ 32.00.02	Leak Check Landing Gear Struts	450 FH	
32.00.03	Service Landing Gear Struts	24 MTH	
32.00.05	Replace MLG Door Actuator Aft Hook Fuse (Shear) Bolt NOTE 1: Applicable to P/N27-51042-177; 27-51042-179 NOTE 2: This interval is subsequent to the initial compliance threshold detailed in Service Letter 227-SL-063.	60 MTH	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
*32.10.02 L	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. NOTE 1: Re-inspect at 800 flight hours if no cracks are found. NOTE 2: Re-inspect at 50 flight hours if discovered cracks are reworked as per Service Bulletin 227-32-022. NOTE 3: Applies to P/N 5453001-1	4000 FH	NOTE 1 NOTE 2
*32.10.02 R	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. NOTE 1: Re-inspect at 800 flight hours if no cracks are found. NOTE 2: Re-inspect at 50 flight hours if discovered cracks are reworked as per Service Bulletin 227-32-022. NOTE 3: Applies to P/N 5453001-1	4000 FH	NOTE 1 NOTE 2
*32.10.03 L	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. NOTE 1: Re-inspect at 800 flight hours if no cracks are found. NOTE 2: Re-inspect at 50 flight hours if discovered cracks are reworked as per Service Bulletin 227-32-022. NOTE 3: Applies to P/N 5453001-3	10000 FH	NOTE 1 NOTE 2
*32.10.03 R	S.I. 11-1 Inspect LH/RH Main Landing Gear Strut Housing at top of Drag Brace Boss. NOTE 1: Re-inspect at 800 flight hours if no cracks are found. NOTE 2: Re-inspect at 50 flight hours if discovered cracks are reworked as per Service Bulletin 227-32-022. NOTE 3: Applies to P/N 5453001-3	10000 FH	NOTE 1 NOTE 2
*32.10.04 L	S.I. 11-2 Inspect LH/RH Main Landing Gear Drag Brace, Drag Links OZONE Industries, Inc. P/N OAS5453-1 (Revision "H", "J", "K" or "N") or P/N OAS5453-5 MLG Assembly Installed. NOTE: Threshold applies to New Landing gear. Refer to Service Bulletin 227-32-043 and AD 2000-17-11.	15000 FH	1000 FH
*32.10.04 R	S.I. 11-2 Inspect LH/RH Main Landing Gear Drag Brace, Drag Links OZONE Industries, Inc. P/N OAS5453-1 (Revision "H", "J", "K" or "N") or P/N OAS5453-5 MLG Assembly Installed. NOTE: Threshold applies to New Landing gear. Refer to Service Bulletin 227-32-043 and AD 2000-17-11.	15000 FH	1000 FH
32.10.05 L	Perform NDT Inspection of Main Gear Yoke NOTE 1: Refer to AD96-19-05 NOTE 2: Ultrasonic Inspection NOTE 3: Applies to OAS5453 up to and including -019	2000 FH or 12 MTH	
32.10.05 R	Perform NDT Inspection of Main Gear Yoke NOTE 1: Refer to AD96-19-05 NOTE 2: Ultrasonic Inspection NOTE 3: Applies to OAS5453 up to and including -019	2000 FH or 12 MTH	
32.20.02	Perform NDT Inspection of Nose Gear Yoke NOTE 1: Refer to AD96-19-05 NOTE 2: Ultrasonic Inspection NOTE 3: Applies to OAS5451 up to and including -017	2000 FH or 12 MTH	
Δ 32.50.50	Clean or Replace Nose Wheel Steering Servo Filter Elements NOTE: Applicable to P/N 350506	900 FH	
Δ 32.50.51	Replace Nose Wheel Steering Filter Element (Canister) NOTE: Applicable to P/N AC-3255F-8Y14	1000 FH	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 34 - Navigation			
	- Removed Rev 2		
34.00.01	Perform FAR91.411 & 91.413 Checks	24 MTH	
34.00.02	Update Honeywell EGPWS VI Database	As released by Honeywell	
ATA 35 - Oxygen			
35.00.00	Oxygen Bottle 11 Cu. Ft. Portable Hydrostatic Test NOTE: Applicable to P/N 5500-C1S-B20AP (AVOX Systems)	5 YRS	
35.00.01	Oxygen Bottle 22 Cu. Ft. (DOT 3AA) Hydrostatic Test NOTE 1: Applicable to P/N 176127-22; 176177-22 NOTE 2: Oxygen cylinders marked with DOT 3AA and DOT 3AL require a hydrostatic test every 5 years and are not life limited.	5 YRS	
35.00.02	Oxygen Bottle 49 Cu. Ft. (DOT 3HT) Hydrostatic Test NOTE: Applicable to P/N 176127-49; 176177-49	3 YRS	
35.00.03	Oxygen Bottle 49 Cu. Ft. (DOT 3HT) Life Limit NOTE 1: Applicable to P/N 176127-49; 176177-49 NOTE 2: Oxygen cylinders marked with DOT 3HT require a hydrostatic test every 3 years and are limited to a maximum service life of 24 years after original manufacture or 4,380 pressurization cycles whichever comes first. If a cylinder is recharged on average more than once every other day, an accurate record of the number of recharging must be maintained.	NOTE 2	
35.00.04	Oxygen Bottle 64 Cu. Ft. (DOT 3HT) Hydrostatic Test NOTE: Applicable to P/N 176127-64; 176177-64	3 YRS	
35.00.05	Oxygen Bottle 64 Cu. Ft. (DOT 3HT) Life Limit NOTE 1: Applicable to P/N 176127-64; 176177-64 NOTE 2: Oxygen cylinders marked with DOT 3HT require a hydrostatic test every 3 years and are limited to a maximum service life of 24 years after original manufacture or 4,380 pressurization cycles whichever comes first. If a cylinder is recharged on average more than once every other day, an accurate record of the number of recharging must be maintained.	NOTE 2	
35.00.06	Oxygen Bottle 76 Cu. Ft. (DOT 3HT) Hydrostatic Test NOTE: Applicable to P/N 176127-76; 176177-76	3 YRS	
35.00.07	Oxygen Bottle 76 Cu. Ft. (DOT 3HT) Life Limit NOTE 1: Applicable to P/N 176127-76; 176177-76 NOTE 2: Oxygen cylinders marked with DOT 3HT require a hydrostatic test every 3 years and are limited to a maximum service life of 24 years after original manufacture or 4,380 pressurization cycles whichever comes first. If a cylinder is recharged on average more than once every other day, an accurate record of the number of recharging must be maintained.	NOTE 2	
35.00.08	Oxygen Bottle 115 Cu. Ft. (DOT 3HT) Hydrostatic Test NOTE: Applicable to P/N 176127-115; 176177-115	3 YRS	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
35.00.09	Oxygen Bottle 115 Cu. Ft. (DOT 3HT) Life Limit NOTE 1: Applicable to P/N 176127-115; 176177-115 NOTE 2: Oxygen cylinders marked with DOT 3HT require a hydrostatic test every 3 years and are limited to a maximum service life of 24 years after original manufacture or 4,380 pressurization cycles whichever comes first. If a cylinder is recharged on average more than once every other day, an accurate record of the number of recharging must be maintained.	NOTE 2	
35.00.10	Oxygen Bottle 50.1 Cu. Ft. Hydrostatic Test NOTE 1: Applicable to P/N 89549050 NOTE 2: DOT 3HT E8162 cylinders are limited to a maximum service life of 15 years after original manufacture. If hydrostatically tested after July 1, 2006 or has a DOT SP8162 stamp, then they are required to be hydrostatically tested every 5 years. If hydrostatically tested before July 1, 2006, then they are required to be hydrostatically tested every 3 years.	NOTE 2	
35.00.11	Oxygen Bottle 50.1 Cu. Ft. Life Limit NOTE 1: Applicable to P/N 89549050 NOTE 2: DOT 3HT E8162 cylinders are limited to a maximum service life of 15 years after original manufacture. If hydrostatically tested after July 1, 2006 or has a DOT SP8162 stamp, then they are required to be hydrostatically tested every 5 years. If hydrostatically tested before July 1, 2006, then they are required to be hydrostatically tested every 3 years.	NOTE 2	
35.00.12	Oxygen Bottle 115.7 Cu. Ft. Hydrostatic Test NOTE 1: Applicable to P/N 89549015 NOTE 2: DOT 3HT E8162 cylinders are limited to a maximum service life of 15 years after original manufacture. If hydrostatically tested after July 1, 2006 or has a DOT SP8162 stamp, then they are required to be hydrostatically tested every 5 years. If hydrostatically tested before July 1, 2006, then they are required to be hydrostatically tested every 3 years.	NOTE 2	
35.00.13	Oxygen Bottle 115.7 Cu. Ft. Life Limit NOTE 1: Applicable to P/N 89549015 NOTE 2: DOT 3HT E8162 cylinders are limited to a maximum service life of 15 years after original manufacture. If hydrostatically tested after July 1, 2006 or has a DOT SP8162 stamp, then they are required to be hydrostatically tested every 5 years. If hydrostatically tested before July 1, 2006, then they are required to be hydrostatically tested every 3 years.	NOTE 2	
35.00.14	Oxygen Bottle (50.1 Cu. Ft. (Composite, DOT SP 8162-1850)) Hydrostatic Test NOTE 1: Applicable to P/N 21507-02 NOTE 2: If hydrostatically tested after June 30, 2006, then they are required to be hydrostatically tested every 5 years. If hydrostatically tested before July 1, 2006, then they are required to be hydrostatically tested every 3 years.	5 YRS	
35.00.15	Oxygen Bottle (50.1 Cu. Ft. (Composite, DOT SP 8162-1850)) Life Limit NOTE 1: Applicable to P/N 21507-02 NOTE 2: Composite oxygen cylinders are limited to a maximum service life of 15 years after original manufacture.	15 YRS	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 52 - Doors			
52.00.01	Replace Cargo Door Bottom Two Latches NOTE 1: Applies only to AC/BC Models NOTE 2: Applicable to P/N H2949-7 or 27-24135-009	10000 FH	
52.00.02	Replace Cargo Door Bottom Two Latches NOTE 1: Applies only to TT/AT Models NOTE 2: Applicable to P/N H2949-7 or 27-24135-010	3000 FH	
52.00.03	Replace Passenger Door Top Center Latch NOTE 1: Applies only to AC/BC Models NOTE 2: Applicable to P/N H2949-7 or 27-24135-011	10000 FH	
52.00.04	Replace Passenger Door Top Center Latch NOTE 1: Applies only to TT/AT Models NOTE 2: Applicable to P/N H2949-7 or 27-24135-012	3000 FH	
*52.00.05	S.I. 1-1 Inspect Fwd and AFT, LWR end of Cargo Door, near bayonet pins. Check Frames for Cracks NOTE 1: 1900 FH NOTE 2: 3500 FH for S/N 481 and up.	NOTE 1 NOTE 2	1000 FH
*52.00.06	S.I. 1-2 Inspect FWD and AFT upper Cargo door corners of skin, along hinge attachment for cracks at rivets	15000 FH	2000 FH
*52.00.07	S.I. 1-3 Inspect LWR AFT corner of Cargo door outer skin cracks at rivets	9500 FH	1000 FH
*52.00.08	S.I. 1-4 Replace Cargo Door LWR Latch Assembly. NOTE 1: 3000 FH for SA227AT 10000 FH for SA227AC, BC NOTE 2: Retirement life applies to latch assembly Hartwell P/N H2949-7	NOTE 1	
*52.00.09	S.I. 1-5 Inspection of Cargo door Click-Clack engagement, adjustment, Receptacle and door warning system IAW TNA Task Card S.I. 5-1	1200 FH	1200 FH
*52.00.10	S.I. 2-1-1 Inspect LWR corners of Cargo door frame where bayonet pins insert. Check faceplates and back plates for elongation.	23000 FH	2000 FH
*52.00.11	S.I. 2-1-2 Check for cracks around screws attaching faceplates and receptacles	6500 FH	2000 FH
*52.00.12	S.I. 2-1-3 Check under faceplates for warping or other damage of the door sill	23000 FH	2000 FH
*52.00.13	S.I. 2-2-1 Check for cracks in door sill around both LWR latch faceplates	6500 FH	1000 FH
*52.00.14	S.I. 2-2-2 Check for damaged or cracked faceplates	23000 FH	1000 FH
*52.00.15	S.I. 2-2-3 Check for broken screws securing faceplates	6500 FH	1000 FH
*52.00.16	S.I. 2-3 Check FWD and AFT click-clack bushing receptacles for cracks. NOTE: Within 300 hours' time in service (TIS) from the receipt of Service Letter 227-SL-043	300 FH NOTE	1200 FH
*52.10.01	S.I. 3-1 Inspect Upper FWD door corner near bayonet pin for cracks.	13000 FH	1000 FH
*52.10.02	S.I. 3-2 Inspect Hinge area on door and fuselage for broken hinge segments.	17000 FH	1000 FH
*52.10.03	S.I. 3-3 Inspect Upper AFT corner of door frame on fuselage for cracks. NOTE: Replacement of a damaged door frame corner resets the initial inspection period of 10,000 hrs.	10000 FH	2000 FH NOTE

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
*52.10.04	S.I 3-4 Inspect Outer skin at upper aft fuselage door frame for cracks.	10000 FH	2000 FH
*52.10.05	S.I 3-5 Inspect Upper forward corner of door frame on fuselage for cracks. NOTE: Replacement of a damaged door frame corner resets the initial inspection period of 10,000 hrs.	10000 FH	2000 FH NOTE
*52.10.06	S.I 3-6 Inspect inside cabin door, LWR AFT corner, at floor level for crack in the frames.	20000 FH	3000 FH
*52.10.07	S.I 3-7 Inspect door sill web at notches for FWD and AFT side fuselage door frame pass-through. NOTE: After accomplishing Service Bulletin 227-53-004, inspection is not required.	8000 FH	2000 FH
*52.10.08	S.I 3-8 Inspect Latch assembly. NOTE 1: 3000 FH for SA227TT, AT. 10000 FH for SA227AC, BC NOTE 2: Retirement life applies to latch assembly, Hartwell P/N H2949-7. NOTE 3: Not applicable to S/N 602, 607 and subsequent.	NOTE 1	
*52.00.09	S.I 3-9 Check FWD and AFT click-clack bushing receptacles for cracks. NOTE 1: Not applicable to S/N 602, 607 and subsequent. NOTE 2: Within 300 hours' time-in service (TIS) from the receipt of Service Letter 227-SL-043.	300 FH NOTE 2	1200 FH
52-31-01	S.I.D. SA226/227 Cargo Door Hinge Replacement NOTE: See Section 2.20 for applicability and interval.	NOTE	
ATA 53 - Fuselage			
*53.10.01	S.I. 4-1 Inspect inside cabin, on LH/RH side along stringer #8 at the frame for cracks in the frame.	17500 FH	3000 FH
*53.10.02	S.I. 4-2 Inspect inside cabin, on LH/RH side along stringer #8 at the frame for cracks in the clip.	17500 FH	3000 FH
*53.10.03	S.I. 4-3 Inspect inside cabin, on LH/RH side between stringers #8 and #6 at the frame for cracks in the frame.	26000 FH	3000 FH
*53.10.04	S.I. 4-4 Inspect inside the cabin, overhead on the LH side for cracks in the frame.	23000 FH	3000 FH
*53.10.05	S.I. 5-1 Inspect Outside cabin, on the Upper Outbd corner of the windshield retainer trim plate for cracks in the trim plate.	25000 FH	3000 FH
*53.10.06	S.I. 5-2 Inspect inside the cabin, on the RH side below right center windshield for cracks in the frame.	25000 FH	1000 FH
*53.10.07	S.I. 5-3 Inspect inside the cabin, along the upper flange radius of the FWD bulkhead at the frame for cracks in the radius.	25000 FH	1000 FH
*53.10.08	S.I. 6-1 Inspect outside of the aircraft, Check all windows and escape hatches for cracks in the skin around the windows.	23000 FH	3000 FH
*53.10.09	S.I. 6-2 Inspect outside of the aircraft, on the fuselage near LWR FWD corner of door (STA 435) for cracks in the skin	23000 FH	3000 FH
*53.10.10	S.I. 6-3 Inspect outside of the aircraft below the cargo door (STA 435 thru 493) for failed rivets along the entire fuselage below the door. (STR #12) Applies only to SA227AC, AT and BC aircraft.	10000 FH	1000 FH
*53.10.11	S.I. 6-4 Inspect on the inside of the aircraft, between STA 287 and wing front spar. Check the intercostal for cracks. NOTE: These intercostals exist only on serial numbers: 420 thru 570 except 482, 504, 532, 538, and 577, 578, 580 and aircraft with cargo modification IAW drawing 27-13885.	6500 FH	1000 FH

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
*53.10.12	S.I. 6-5 Inspect on the inside of the aircraft, on LH side between STA 347 and 362 and stringer 2 and 3. Check cargo tie intercostal for cracks at the rivets. Applies only to SA227AC, AT and BC aircraft.	23000 FH	3000 FH
*53.10.13	S.I. 6-6 Inspect inside the tail cone, LH/RH side of bulkhead at (STA 565 for SA227AC, AT and BC)(STA 359 for SA227TT) for cracks in the bulkhead.	6500 FH	2500 FH
*53.20.01	S.I. 7-1 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 474 LWR AFT receptacle. NOTE 1: 6500 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470. NOTE 2: 17000 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470, and AT-423 – 469 which have complied with Service Bulletin 227- 53-003. NOTE 3: 17000 FH Aircraft Serial Numbers: 457, 470 and subsequent.	NOTE 1 NOTE 2 NOTE 3	1000 FH
*53.20.02	S.I. 7-2 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 455 LWR FWD receptacle NOTE 1: 6500 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470. NOTE 2: 17000 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470, and AT-423 – 469 which have complied with Service Bulletin 227- 53-003. NOTE 3: 17000 FH Aircraft Serial Numbers: 457, 470 and subsequent.	NOTE	1000 FH
*53.20.03	S.I. 7-3 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 473 LWR AFT receptacle NOTE 1: 6500 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470. NOTE 2: 17000 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470, and AT-423 – 469 which have complied with Service Bulletin 227-53-003. NOTE 3: 17000 FH Aircraft Serial Numbers: 457, 470 and subsequent.	NOTE	1000 FH
*53.20.04	S.I. 7-4 Inspect Below cargo floor for cracks in the FWD or AFT side of the frame at STA 454 LWR FWD receptacle NOTE 1: 6500 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470. NOTE 2: 17000 FH Aircraft Serial Numbers: 398 – 478 except 457 and 470, and AT-423 – 469 which have complied with Service Bulletin 227-53-003. NOTE 3: 17000 FH Aircraft Serial Numbers: 457, 470 and subsequent.	NOTE	1000 FH
*53.20.05	S.I. 7-5 Inspect Below cargo floor for cracks in the frame at STA 491.	17000 FH	1000 FH
*53.20.06	S.I. 7-6 Inspect Below cargo floor for cracks in the frame at STA 438	17000 FH	1000 FH
ATA 54 - Nacelles/Pylons			
*54.00.01	S.I. 15-1 Inspect LH/RH nacelle for cracks and/or bulges, Inbd and Outbd Keelson Web Skin at Nacelle Station (N.S.) 141.69. Inspect opposite side of shaded area, through existing Nacelle Access Panels of LH/RH, Inbd and Outbd Nacelle Skins, 4 places total, each Nacelle.	5000 FH	2000 FH

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 55 - Stabilizers			
*55.00.00	Horizontal Tail Life Limit NOTE: Refer to SID 27-10054-213 for Life extension.	35000 FH OR NOTE	
*55.00.01	S.I. 8-1 Inspect LH/RH stabilizer along the rib, AFT of front spar for cracks in the rib where the rib narrows to mate with the spar.	30000 FH	3000 FH
*55.00.02	S.I. 8-2 Inspect LH/RH stabilizer along the rib (STA 3.135) AFT of front spar for cracks in the gusset.	30000 FH	3000 FH
*55.00.03	S.I. 8-3 Inspect LH/RH stabilizer at AFT spar for cracks or a break in P/N 27-43057 upper and LWR rib splice straps. NOTE: Service Bulletin 227-55-007 replaces Splice Strap P/N 27-43057 with P/N 27-43077. If Service Bulletin has been complied with, then no inspection is required for S.I. 8-3.	30000 FH	2000 FH
*55.00.04	S.I. 8-4 Inspect at all stringer-rib joints for cracked rib flange by pressing on rib and stringer separately.	10000 FH	2000 FH
*55.10.00	S.I. 9-1 Vertical Tail Life Limit NOTE: Refer to Section 2.20 and SID 27-10054-213 for Life extension.	35000 FH OR NOTE	
55-10-01	SA226/227 Rib Strap at Horizontal Stabilizer Rear Spar at B.L. 3.1 Reinforcement NOTE: See Section 2.20 for applicability and interval.	NOTE	
ATA 56 - Windows			
*56.00.01	S.I. 13-1 Inspect all cabin and cockpit external single pane acrylic transparencies.	2500 FH OR 12 MTH	1000 FH OR 12 MTH
56.00.02	Replacement of Cockpit Single Pane Side Window NOTE 1: Applicable to P/N 26-21383 (all dash #) NOTE 2: Refer to AD 96-20-08.	5000 FH	
ATA 57 - Wings			
*57.00.01	S.I. 10-1 Inspect Wing main spar, FWD & AFT and center webs. Check all three spar webs for cracks at stringer pass through holes in spar webs. Inspect LWR, FWD and AFT spar caps, from LH/RH W.S. 0.00 - 27.00, for corrosion. Inspect for cracks near fasteners on vertical leg of spar cap angles.	10600 FH	2000 FH
*57.00.02	S.I. 10-2-1 Inspect LH/RH wing outer belly skin between main and rear spars at W.S. 27.103 for cracks running FWD and AFT. NOTE: Effective at S/N 591 and up, no inspection required.	14000 FH	2000 FH
*57.00.03	S.I. 10-2-2 Inspect both ends of stringers along wing center section, inside belly, for cracks.	25000 FH	1000 FH
*57.00.04	S.I. 10-2-3 Inspect LH/RH wing outer belly skin near rear spar for cracks around landing light and intersecting frame at W.S. 27.103. NOTE: SA227TT models only.	14000 FH	2000 FH
*57.00.05	S.I. 10-3 Inspect LH/RH wing angle at rear spar, W.S. 27.103 for crack in spar angle.	29000 FH	2000 FH
*57.00.06	S.I. 10-4 Inspect LH/RH wings at rear spar and Wing STA 27.063, rib web, adjacent to wing center section, check for crack on inboard rib.	29000 FH	2000 FH
*57.00.07	S.I. 10-5 Inspect LH/RH wings, AFT of rear spar, Outbd of the nacelle, lower skin cutout for hydraulic lines, for cracks in skins.	19000 FH	3000 FH

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
*57.00.08	S.I. 10-6 Perform Eddy current inspection of LH/RH wings, LWR front spar cap from RH B.L. 15 to LH B.L. 15. (See FMP57-011, Appendix C)	25000 FH	5000 FH
57-10-03	S.I.D. SA226/227 Wing Main Spar Lower Cap at STA 9 Inspection NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
57-10-05	S.I.D. SA226/227 Wing Main Spar Lower Cap at STA 99. NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
57-10-06	S.I.D. SA226/227 Lower Wing Skin Splice at STA 27. NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
57-10-07	S.I.D. SA226/227 Wing Lower Center Section Skin at Landing Light Cutout NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
ATA 61 - Propellers			
61.00.03 L	Perform Propeller Balance	12 MTHS	
61.00.03 R	Perform Propeller Balance	12 MTHS	
61.10.01 L	Dowty Propeller Overhaul	5000 HRS or 120 MTHS	
61.10.01 R	Dowty Propeller Overhaul	5000 HRS or 120 MTHS	
61.10.02 L	Dowty Propeller Midlife Inspection NOTE: Refer to SB61-1111	60 MTHS	
61.10.02 R	Dowty Propeller Midlife Inspection NOTE: Refer to SB61-1111	60 MTHS	
61.10.03 L	MT Propeller Overhaul	3600 FH or 72 MTHS	
61.10.03 R	MT Propeller Overhaul	3600 FH or 72 MTHS	
ATA 71 - Powerplant			
71.00.03 L	Plenum Drain Valve Inspection	300 HRS	
71.00.03 R	Plenum Drain Valve Inspection	300 HRS	
71.00.04 L	Plenum Drain Valve Function Test	800 HRS	
71.00.04 R	Plenum Drain Valve Function Test	800 HRS	
71-21-01	S.I.D. SA227 Engine Mount at Firewall NOTE: See Chapter 2.23 for applicability and interval.	NOTE	
ATA 72 - Engine			
72.00.01 L	Engine Overhaul or CAM Inspection	7000 HRS ± 100 HRS	
72.00.01 R	Engine Overhaul or CAM Inspection	7000 HRS ± 100 HRS	
72.00.02 L	Perform Hot Section Inspection	3500 HRS ± 100 HRS	
72.00.02 R	Perform Hot Section Inspection	3500 HRS ± 100 HRS	
72.00.03 L	Perform Gearbox Inspection NOTE: 3500 HRS or 7000 HRS ± 100 HRS Depending on the SB Status	NOTE	
72.00.03 R	Perform Gearbox Inspection NOTE: 3500 HRS or 7000 HRS ± 100 HRS Depending on the SB Status	NOTE	
72.00.04 L	Perform Engine Compressor Section Inspection	7000 HRS ± 100 HRS	
72.00.04 R	Perform Engine Compressor Section Inspection	7000 HRS ± 100 HRS	
72.00.05 L	Perform Engine Function Test	7000 HRS ± 100 HRS	
72.00.05 R	Perform Engine Function Test	7000 HRS ± 100 HRS	
72.00.06 L	Annual Inspection of Engine Magnesium Housing For Corrosion	12 MTHS	
72.00.06 R	Annual Inspection of Engine Magnesium Housing For Corrosion	12 MTHS	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
72.10.02 L	Prop Pitch Control Overhaul	7000 HRS ± 100 HRS	
72.10.02 R	Prop Pitch Control Overhaul	7000 HRS ± 100 HRS	
72.10.03 L	Prop Governor Overhaul	7000 HRS ± 100 HRS	
72.10.03 R	Prop Governor Overhaul	7000 HRS ± 100 HRS	
72.10.04L	Inspect Starter Generator Drive Spline NOTE: Applies to Post SB TPE331-72-0416.	400 FH	
72.10.04R	Inspect Starter Generator Drive Spline NOTE: Applies to Post SB TPE331-72-0416.	400 FH	
72.77.01 L	Torque Load Arm Applied Torque Inspection NOTE: Applies to Pre SB TPE331-72-0818 Only.	1000 HRS	
72.77.01 R	Torque Load Arm Applied Torque Inspection NOTE: Applies to Pre SB TPE331-72-0818 Only.	1000 HRS	
ATA 73 - Engine Fuel & Control			
73.10.11 L	Clean or Replace Fuel Nozzle Assembly NOTE 1: Applicable to P/N 3103235-8/-9/-10/-11 NOTE 2: Interval based on SB TPE331-73-0284	350 HRS	
73.10.11 R	Clean or Replace Fuel Nozzle Assembly NOTE 1: Applicable to P/N 3103235-8/-9/-10/-11 NOTE 2: Interval based on SB TPE331-73-0284	350 HRS	
73.20.10 L	Fuel Control Unit Overhaul NOTE: Applicable to Pre SB TPE331-A73-0254 Only	6000 HRS ± 100 HRS	
73.20.10 R	Fuel Control Unit Overhaul NOTE: Applicable to Pre SB TPE331-A73-0254 Only	6000 HRS ± 100 HRS	
73.20.11 L	Fuel Control Unit Overhaul NOTE: Applicable to Post SB TPE331-A73-0254 Only	7000 HRS ± 100 HRS	
73.20.11 R	Fuel Control Unit Overhaul NOTE: Applicable to Post SB TPE331-A73-0254 Only	7000 HRS ± 100 HRS	
73.20.15 L	Fuel Pump Assembly Overhaul	7000 HRS ± 100 HRS	
73.20.15 R	Fuel Pump Assembly Overhaul	7000 HRS ± 100 HRS	
73.20.20 L	Fuel Control/Fuel Pump Spline Inspection	3500 HRS ± 100 HRS	
73.20.20 R	Fuel Control/Fuel Pump Spline Inspection	3500 HRS ± 100 HRS	
73.20.25 L	Fuel Shut Off Valve Overhaul	7000 HRS ± 100 HRS	
73.20.25 R	Fuel Shut Off Valve Overhaul	7000 HRS ± 100 HRS	
73.20.30 L	Torque/Temp Limiter	7000 HRS ± 100 HRS	
73.20.30 R	Torque/Temp Limiter	7000 HRS ± 100 HRS	
ATA 76 - Engine Controls			
76.00.01 L	Perform Fuel Control/ Fuel Pump Integrity Inspection	3700 HRS	
76.00.01 R	Perform Fuel Control/ Fuel Pump Integrity Inspection	3700 HRS	
ATA 77 - Engine Indicating			
77.00.05 L	Tachometer Generator Drive Inspection NOTE: Applicable to Pre SB TPE331-72-0486 Only	400 HRS	
77.00.05 R	Tachometer Generator Drive Inspection NOTE: Applicable to Pre SB TPE331-72-0486 Only	400 HRS	
77.00.10 L	NTS Trip System Check	300 HRS	
77.00.10 R	NTS Trip System Check	300 HRS	
ATA 78 - Exhaust			
78.10.01	Replace Exhaust Duct and Gasket NOTE 1: Applicable to P/N 27-62080-023, -025 NOTE 2: TPE331-12 Engine Only and -041	2500 FH	
Δ 78.10.02	Inspect Inconel Exhaust Duct for cracks NOTE: Applicable to P/N 27-65080-047	3500 FH	

OUT OF PHASE INSPECTIONS			
TASK NO.	DESCRIPTION	THRESHOLD	REPEAT INTERVAL
ATA 79 - Oil			
79.00.01 L	Engine Oil Change (Type II)	900 HRS	
79.00.01 R	Engine Oil Change (Type II)	900 HRS	
ATA 82 - Water Injection			
Δ 82.20.01	CAWI "Wet" Distribution System Inspection	9000 FH or 9 YRS	

Tasks without an indication are recommended task inspection or replacement intervals.

Tasks indicated with a * are Airworthiness Limitations.

Tasks indicated with a Δ are recommended tasks, which can and should be adjusted based on the operators experience and environment per the SA227 Maintenance Manual Time Limitation section.

CH 4 Phase Inspections

CH 4.1 Inspection Form Listing/Matrix

INSPECTION FORMS MATRIX			
AREA	TYPE	FORM	PHASE
Nose Section	Heavy	601	1
Cabin Door	Light	602	5
Cabin Door	Heavy	603	1
Flight Compartment	Heavy	604	5
Cabin & Fuselage	Heavy	605	4
Landing Gear	Light	606	6
Landing Gear	Heavy	607	3
Wing/Center Section	Light	608	2
Wing/Center Section	Heavy	609	7
Cargo Area/Door	Light	610	4
Cargo Area/Door	Heavy	611	8
Empennage	Light	612	1
Empennage	Heavy	613	7
Engine	Light	614	1, 3, 5, 7
Engine	Heavy	615	2, 4, 6, 8
Propeller	Light	616	2, 4, 6
Propeller	Heavy	617	8

CH 4.2 Inspection Form Listing

INSPECTION FORM LISTING			
INSPECTION	FORM	INSPECTION	FORM
Phase 1	201	Basic Segment Block Inspection	301
Phase 2	202	First Intermediate Segment Block Inspection	302
Phase 3	203	Second Intermediate Segment Block Inspection	303
Phase 4	204	Heavy Segment Block Inspection	304
Phase 5	205	Service Check	401
Phase 6	206	Post Inspection Engine Run	502
Phase 7	207	Post Rigging Engine Run	503
Phase 8	208	Avionics Inspection	504

CH 4.3 Inspection Forms

FORM 201 – PHASE 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
HEAVY	Nose Section	601			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Cabin Door	603			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Empennage	612			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Engine	614			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 202 – PHASE 2

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
LIGHT	Wing/Center Section	608			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Engine	614			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Propeller	616			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 203 – PHASE 3

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
HEAVY	Landing Gear	607			
	Mechanic's Pre-flight	501			N/A
LIGHT	Engine	614			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 204 – PHASE 4

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
HEAVY	Cabin & Fuselage	605			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Cargo Area Door	610			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Engine	615			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Propeller	616			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 205 – PHASE 5

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
LIGHT	Cabin Door	602			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Flight Compartment	604			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Engine	614			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 206 – PHASE 6

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
LIGHT	Landing Gear	606			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Engine	615			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Propeller	616			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 207 – PHASE 7

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
HEAVY	Wing/Center Section	609			
	Mechanic's Pre-flight	501			N/A
HEAVY	Empennage	613			N/A
	Mechanic's Pre-flight	501			N/A
LIGHT	Engine	614			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 208 – PHASE 8

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Instructions:

Phase inspections are composed of multiple zone inspections. Each zone requires an individual FORM. A combination of zones may be inspected, and the aircraft returned to service, without completing the entire Phase provided the inspection interval is not exceeded. If the Phase is accomplished in multiple visits, Mechanic's Pre-flight (FORM 501) must be completed to return the aircraft to service between visits. See Chapter 1.12 Interval Definitions of this manual for ARL criteria.

Inspection Type	Area Inspected	Form Number	Date/Time Completed	Mechanic Initials	RII Initials
HEAVY	Cargo Area/Door	611			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Engine	615			
	Post Insp. Engine Run	502			N/A
	Mechanic's Pre-flight	501			N/A
HEAVY	Propeller	617			N/A
	Mechanic's Pre-flight	501			N/A

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 301 – BASIC SEGMENT BLOCK INSPECTION

1 of 4

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
N/A	Inspect Aircraft for Airworthiness Certificate, Registration, Radio License and Flight Manual.	N/A		N/A
Inspect LH/RH Elevators as follows:				
27-30	Remove elevator quadrant access panel and fairings.	808, 819, 820		N/A
27-30	Remove left and right elevators at 2250 flight hour intervals on aircraft with inboard elevator hinge bearings P/N LHSS-4. Remove left and right elevators at 4500 flight hour interval on aircraft with bearing and cap assembly P/N VTA 04270. Inspect bearing for binding, condition and security.	N/A		N/A
27-30	Remove and lubricate inboard elevator hinge bearings, P/N LHSS-4, with MIL-G-81322 or similar general purpose grease. Bearing and cap assembly P/N VTA 04270 does not require lubrication.	N/A		N/A
27-30	Inspect elevator quadrant for cracks, freedom of movement, and correct travel from stop to stop.	N/A		N/A
27-30	Inspect elevators for cracks, dents, loose fasteners, and general condition.	N/A		N/A
27-30	Inspect elevator hinge attach brackets for loose fasteners and security of mounting.	N/A		N/A
27-30	Install elevator hinge bearings, if removed.	N/A		
27-30	Install left and right elevators, if removed.	N/A		
27-30	Install elevator quadrant access panel and fairings.	808, 819, 820		N/A
27-00	Install elevator travel boards onto horizontal stabilizer.	N/A		N/A
27-30	Conduct functional check of the elevator down spring.	N/A		N/A
27-30	Conduct functional check of the elevator system for freedom of movement and correct travel from stop to stop.	N/A		
Inspect Pitch Trim Actuator as Follows:				
27-30	Remove pitch trim actuator access panels.	801,802		N/A
27-40	Inspect pitch trim actuator wiring for evidence of overheating, proper routing, and clamping.	N/A		N/A
27-40	Perform functional check of the pitch trim system.	N/A		N/A
27-30	Install access panels.	801, 802		N/A
Inspect NLG, LH/RH MLG bellcrank pivot pins as follows:				
07-10	Jack aircraft.	N/A		N/A
32-20	Remove nose landing gear actuator bellcrank pivot pin access panels.	104, 105		N/A

FORM 301 - BASIC SEGMENT BLOCK INSPECTION

2 of 4

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
32-20	Remove nose landing gear bellcrank pivot pins.	N/A		N/A
32-20	Inspect nose landing gear actuator bellcrank pivot pins and bushings for excessive wear and security of attachment.	N/A		N/A
32-20	Lubricate and install nose landing gear pivot pins.	N/A		
32-20	Install nose landing gear actuator bellcrank pivot pin access panels.	104, 105		N/A
32-10	Remove left main landing gear actuator bellcrank pivot pin access panels.	907, 915		N/A
32-10	Remove right main landing gear actuator bellcrank pivot pin access panels.	906, 916		N/A
32-10	Remove left main landing gear bellcrank pivot pins.	N/A		N/A
32-10	Remove right main landing gear bellcrank pivot pins.	N/A		N/A
32-10	Inspect left main landing gear actuator bellcrank pivot pins and bushings for excessive wear and security of attachment.	N/A		N/A
32-10	Inspect right main landing gear actuator bellcrank pivot pins and bushings for excessive wear and security of attachment.	N/A		N/A
32-10	Lubricate and install left main landing gear pivot pins.	N/A		
32-10	Lubricate and install right main landing gear pivot pins.	N/A		
32-10	Install left main landing gear actuator bellcrank pivot pin access panels.	907, 915		N/A
32-10	Install right main landing gear actuator bellcrank pivot pin access panels.	906, 916		N/A
32-00	Perform landing gear functional check.	962, 963		
Inspect Engine (Long Tail Pipe) Aspirator Duct Assemblies as follows:				
78-00	Remove nacelle fairing assemblies.	962, 963		N/A
78-00	Inspect aspirator exhaust insulation blanket, gasket, and fairing assembly for cracks, security, and general condition.	N/A		N/A
78-00	Install fairing assemblies.	962, 963		N/A

FORM 301 - BASIC SEGMENT BLOCK INSPECTION

3 of 4

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect Wings/Center Section As follows:				
57-10	Remove wing tip and flux valve access panels.	687, 688, 698, 699		N/A
57-00	Remove forward and aft wing to fuselage fairings.	696, 697		N/A
57-00	Inspect structure underneath wing tips for condition and security.	687, 688		N/A
77-20	Inspect delta P/P transducer, plumbing, and electrical connector for condition and security.	N/A		N/A
57-30	Inspect nut plates and fairings for condition and security.	696, 697		N/A
57-40	Inspect fuselage to wing attach bolts and brackets for condition and security.	696, 697		N/A
57-00	Inspect condition of skin and rivets at wing to fuselage attaching points.	N/A		N/A
57-00	Inspect all pressure seals at fuselage for evidence of leakage, condition, and security.	696, 697		N/A
34-20	Inspect flux valves and electrical wiring for security and condition.	698, 699		N/A
57-10	Install wing tip and flux valve access panels.	687, 688, 689, 699		N/A
57-00	Install forward and aft wing to fuselage fairings.	696, 697		N/A

FORM 301 - BASIC SEGMENT BLOCK INSPECTION

4 of 4

The following Panel Removal Checklist is for use during the Basic Segment Block Inspection and a Confirmation Check is required upon installation of the panels listed below.

BASIC BLOCK INSPECTION PANEL REMOVAL / INSTALLATION CHECKLIST				
ATA	PANELS		MECHANIC	RII or CC
27-30	801, 802, 808, 819, 820	Removed		CC
		Installed		
32-20	104, 105	Removed		CC
		Installed		
32-00 78-00	962, 963	Removed		CC
		Installed		
32-10	907, 906, 915, 916	Removed		CC
		Installed		
57-10 34-20	687, 688, 698, 699	Removed		CC
		Installed		
57-00 57-30 57-40	687, 688, 696, 697	Removed		CC
		Installed		
Perform Walk around inspection of aircraft to ensure all inspection panels are installed and secure.				CC

I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Basic Segment Block Inspection Form 301 and is approved for Return to Service.

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 302 – FIRST INTERMEDIATE SEGMENT BLOCK INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
N/A	Inspect Aircraft for Airworthiness Certificate, Registration, Radio License and Flight Manual.	N/A		N/A
Inspect Pitot Static System as Follows:				
34-10	Connect Pitot/Static tester.	N/A		N/A
34-10	Inspect Pitot/Static system for leaks.	N/A		N/A
34-10	Inspect Pitot/Static system calibration. Ref. Task Card 34.00.01	N/A		N/A
34-10	Disconnect Pitot/Static tester.	N/A		N/A

The following Panel Removal Checklist is for use during the First Intermediate Segment Block Inspection and a Confirmation Check is required upon installation of the panels listed below.

FIRST INTERMEDIATE BLOCK INSPECTION PANEL REMOVAL / INSTALLATION CHECKLIST			
ATA	PANELS	MECHANIC	RII or CC
Perform Walk around inspection of aircraft to ensure all inspection panels are installed and secure.			CC

I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Basic Segment Block Inspection Form 301 and is approved for Return to Service.

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 303 – SECOND INTERMEDIATE SEGMENT BLOCK INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Insect Rudder rigging as follows:				
27-00	Remove tailcone.	852		N/A
27-00	Install rudder travel gauge onto aft pressure bulkhead.	N/A		N/A
27-00	Inspect rudder for correct travel and freedom of movement. Check from stop to stop.	N/A		
27-00	Remove rudder travel gauge.	N/A		N/A
27-00	Install tailcone.	852		N/A
27-00	Inspect rudder trim for correct travel and freedom of movement.	N/A		N/A
Inspect Aileron Rigging as follows:				
27-00	Position aileron travel gauge onto wings.	N/A		N/A
27-00	Inspect aileron for correct droop using counterbalance tools.	N/A		N/A
NOTE: Adjust Push-pull tubes if required.				
27-00	Inspect aileron for correct travel and freedom of operation.	N/A		
27-00	Remove aileron travel gauge from wings.	N/A		N/A
27-00	Inspect aileron trim tabs for correct travel and freedom of movement	N/A		N/A
Perform Inspection of the fuel quantity calibration as follows:				
28-40	Install a suitable fuel quantity system tester to the aircraft.	N/A		N/A
28-40	Verify fuel quantity system calibration.	N/A		
28-40	Remove fuel quantity system tester from the aircraft.	N/A		N/A
Perform Inspection of the Gustlock as follows:				
25-20	Remove Coinmat/carpeting.	N/A		N/A
25-20	Remove cabin center aisle floorboards and cargo compartment aft bulkhead.	450-459		N/A
27-70	Perform gust lock rigging procedure.	N/A		N/A
27-70	Inspect gust lock rigging.	N/A		N/A
25-20	Install cabin center aisle floorboards and cargo compartment aft bulkhead.	450-459		N/A
25-20	Install Coinmat/carpeting.	N/A		N/A

FORM 303 – SECOND INTERMEDIATE SEGMENT BLOCK INSPECTION

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The following Panel Removal Checklist is for use during the Second Intermediate Segment Block Inspection and a Confirmation Check is required upon installation of the panels listed below.

SECOND INTERMEDIATE BLOCK INSPECTION PANEL REMOVAL / INSTALLATION CHECKLIST				
ATA	PANELS		MECHANIC	RII or CC
27-00	852	Removed		CC
		Installed		
25-20	450, 451, 452, 453, 454, 455, 456, 457, 458, 459	Removed		CC
		Installed		
Perform Walk around inspection of aircraft to ensure all inspection panels are installed and secure.				CC

I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Basic Segment Block Inspection Form 301 and is approved for Return to Service.

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 304 – HEAVY SEGMENT BLOCK INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
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ATA	OPERATION	PANEL	MECHANIC	RII or CC
Inspect under cabin side floorboards as follows:				
25-20	Remove passenger seats (if installed).	N/A		N/A
25-20	Remove Coinmat/carpeting/cargo liner.	N/A		N/A
25-20	Remove cabin side floorboards.	402-407		N/A
25-20	Inspect wiring under floorboards for evidence of overheating, chafing, proper routing and clamping.	N/A		N/A
29-00	Inspect hydraulic plumbing under floorboards for evidence of leakage, chafing, proper routing and clamping.	N/A		N/A
25-20	Install cabin side floorboards.	402-407		N/A
25-20	Install Coinmat/carpeting/cargo liner.	N/A		N/A
25-20	Install passenger seats (if required).	N/A		N/A
Inspect behind cabin overhead liners as follows:				
25-20	Remove overhead liners.	435, 437-442, 460-462		N/A
25-20	Inspect wiring under overhead liners for evidence of overheating, chafing, proper clamping, routing, and security.	N/A		N/A
25-20	Inspect oxygen lines under overhead liners for chafing, proper clamping, routing and security.	N/A		N/A
53-10	Inspect fuselage structure for cracks, loose fasteners and structural integrity.	N/A		N/A
53-10	Inspect fasteners at passenger window frames for condition, corrosion and security.	N/A		N/A
52-20	Install overhead liners.	435, 437-442, 460-462		N/A

FORM 304 – HEAVY SEGMENT BLOCK INSPECTION

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The following Panel Removal Checklist is for use during the Heavy Segment Block Inspection and a Confirmation Check is required upon installation of the panels listed below.

HEAVY BLOCK INSPECTION PANEL REMOVAL / INSTALLATION CHECKLIST				
ATA	PANELS		MECHANIC	RII or CC
25-20	402, 403, 404, 405, 406, 407, 435, 437, 438, 439, 440, 441, 442, 460, 461, 462	Removed		CC
		Installed		
Perform Walk around inspection of aircraft to ensure all inspection panels are installed and secure.				CC

I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Basic Segment Block Inspection Form 301 and is approved for Return to Service.

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 401 – SERVICE CHECK

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ITEM	DESCRIPTION	MECHANIC	
Nose Section			
1	Check condition and security of radome.		
2	Check forward cargo compartment doors and seals.		
3	Check condition and security of all visible components inside forward cargo compartment.		
4	Check outside air temperature sensor for condition and security.		
5	Check AWI filler cap and tank. Service as required.		
6	Check nose skin for general condition.		
7	Check brake reservoir level and service as required.		
8	Check pitot tubes and forward static ports for obstruction.		
9	Check oxygen blow out disc.		
Engines/Propellers/Nacelles		LH	RH
1	Check engine oil level. Service as required.		
2	Inspect engine air inlet area, temp probe, and oil cooler air inlet for condition and foreign object damage.		
3	Check compressor blades and AWI nozzles for damage.		
4	Inspect engine cowlings, nacelles, and access doors for security and condition.		
5	Check engine fire extinguisher bottle for proper charge.		
6	Check oil filter bypass indicator pin is not extended.		
7	Inspect cowlings and drains for leaks.		
8	Inspect condition of tailpipe.		
9	Inspect propellers for nicks, leaks, and general condition.		
10	Inspect condition of propeller de-ice boots.		
11	Check spinner for condition and security.		
12	Rotate propellers and check for freedom of movement.		
13	Check hydraulic fluid reservoir. Service as required.		
Cockpit/Cabin			
1	Check cockpit general condition and security of all items.		
2	Check registration, airworthiness, radio station, current AFM and W&B data.		
3	Check condition of cockpit windshield and windows.		
4	Check condition of windshield wipers.		
5	Press-to-test landing gear position indicator.		
6	Depress and hold fuel quantity test button. Note: Indicator pointers drive to the 12 o'clock position. Release test button and note pointers return to proper indication.		
7	Perform flight idle gate check IAW AFM.		
8	Check power and speed levers for freedom of operation and smoothness through full range. Engage control lock.		
9	Check engine stop and feather controls for freedom of operation and smoothness through full range.		
10	Perform FDR system check IAW AFM.		
11	Perform CVR system check IAW AFM.		
12	Perform battery disconnect system check.		

FORM 401 – SERVICE CHECK

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ITEM	DESCRIPTION	MECHANIC
13	Perform battery temperature indication check.(NiCad)	
14	Perform stabilizer trim system check IAW AFM. Leave trim set at center of green takeoff band for reference.	
15	Perform AWI pump test IAW AFM if utilized.	
16	Perform engine fire detection and extinguishing system test IAW AFM.	
17	Check operation of left and right engine intake heat test switches.	
18	Check operation of left and right auxiliary and main fuel boost pumps.	
19	Check operation of both inverters.	
20	Check condition and operation of crew seats and belts.	
21	Perform annunciator panel press-to-test.	
22	Perform SAS test.	
23	Check operation of all cockpit and exterior lighting.	
24	Check condition of crew oxygen masks.	
25	Check oxygen pressure.	
26	Check condition of cabin windows.	
27	Check condition and security of emergency exits.	
28	Check security of moveable bulkhead and cabin floor.	
29	Check condition and security of cabin seats and belts	
30	Check operation of all cabin lighting.	
31	Check forward and aft fire extinguishers for security, condition, and inspection date.	
32	Check all seats for life vests, oxygen masks, and inspection dates.	
33	Check first aid kit and inspection date.	
34	Check for flare gun. Check flare expiration dates.	
Exterior Fuselage/Wings/Empennage		
1	Inspect general condition of fuselage exterior.	
2	Check condition and security of all fairings and fillets.	
3	Check condition and security of all antennas.	
4	Check security and condition of SAS vane.	
5	Check condition of cabin door, including chains, snubbers, and seals.	
6	Clean, inspect, and lubricate cabin door click clacks, bayonets, and receptacles. Operate door latching mechanism.	
7	Check general condition of wings and de-ice boots.	
8	Check security of fuel caps.	
9	Inspect fuel sump drains for evidence of leaks and condition. Drain all fuel sumps.	
10	Check Magna Stick for operation and stow.	
11	Check water separator drain for obstruction.	
12	Check fuel vent for obstructions.	
13	Check wing surfaces and access panels for condition and evidence of leaks.	
14	Check static wicks for condition and security.	
15	Check condition and security of all exterior lights.	
16	Check air conditioning air intake and exhaust openings for obstructions.	
17	Check condition and security of flaps, ailerons, and aileron trim tabs.	
18	Inspect ailerons for freedom of movement and full travel from stop to stop.	
19	Check condition of cargo door, including assist mechanism.	
20	Clean, inspect, and lubricate cargo door click clacks, bayonets, and receptacles. Operate door latching mechanism.	
21	Check general condition and security of aft cargo compartment flooring and bulkheads.	
22	Check aft static ports for obstruction.	

FORM 401 – SERVICE CHECK

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ITEM	DESCRIPTION	MECHANIC
23	Check condition and security of tail cone.	
24	Inspect general condition of horizontal stabilizer and de-ice boots	
25	Inspect general condition of vertical stabilizer.	
26	Check Pitch trim openings for obstructions.	
27	Check condition and security of elevator, rudder and rudder trim tab.	
28	Check oxygen thermal relief disc for condition and security.	
Landing Gear / Wheel wells		
1	Check nose gear for general condition.	
2	Check nose gear tires for proper inflation and wear.	
3	Check nose strut for proper service and cleanliness.	
4	Check condition and security of nose gear doors and seals.	
5	Check nose gear wheel well components for condition, security, and leaks.	
6	Inspect landing gear actuators for evidence of leakage, condition and security.	
7	Check nose wheel steering supply filter bypass indicator pin is not extended.	
8	Inspect centering device for condition and security.	
9	Inspect taxi light for condition and security.	
Main Gear		
		LH RH
10	Check main gear for general condition.	
11	Check main gear tires for proper inflation and wear.	
12	Check main gear struts for proper service and cleanliness.	
13	Check condition and security of main gear doors and seals.	
14	Check main gear wheel well components for condition, security, and leaks.	
15	Check brakes for condition and evidence of leakage. Perform brake wear measurement check.	
16	Inspect landing gear actuator for evidence of leakage, condition and security.	
17	Inspect gear doors for condition and security.	
18	Inspect brake torque keys for condition and security.	
General		
1	Aircraft serviced as necessary.	
2	Ensure that all discrepancies noted during this inspection are cleared or properly MEL'd.	
3	Attach copy of discrepancies and/or MEL's and forward to Record Department along with this Service Check Form.	

FORM 501 – MECHANIC’S PRE-FLIGHT

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
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This inspection is a visual check. The inspector should check for security of access panels and inspection doors, check for equipment required for flight and ensure areas are free of foreign objects. Particular emphasis should be placed on the following:

ITEM	OPERATION	MECHANIC	ITEM	OPERATION	MECHANIC
Cockpit Inspection					
1	AFM/Flight Log		17	Annunciator panel and gear lights	
2	Microphone		18	Engine Fire Warning	
3	Oxygen Mask		19	Pitch trim-T/O	
4	Flashlight		20	Boost pump pressure	
5	Portable Fire Extinguisher		21	Fuel shut off valve	
6	Landing gear handle down		22	Hydraulic shut off valve	
7	Landing gear hand pump valve aft		23	Cross flow valve closed	
8	PIP pin installed		24	SAS Ground check	
9	Crew seats		25	P/L, S/L shut off	
10	Control lock off		26	Aileron and rudder trim centered	
11	Parking brake set		27	Flight control movement	
12	Batteries off / on		28	Oxygen pressure	
13	GPU on		29	AWI quantity indication	
14	Circuit Breakers		30	All exterior / interior lighting	
15	Battery disconnect		31	Passenger door seal clean	
16	Fuel quantity test		32	Click-clack	
Cabin Inspection					
1	Oxygen Masks		4	First Aid Kit	
2	Life Vests		5	Briefing cards	
3	Fire Extinguisher		6	Sick Sack	
Left Wing Inspection					
1	Exterior hardware		12	Engine oil quantity	
2	Fuel tank sumps condition		13	Wheel well	
3	Lower antenna		14	Cowling and doors secured	
4	Leading edge ram air scoop clear		15	Wing tank fuel cap	
5	Landing gear condition		16	Fuel vent clear	
6	Brake wear		17	Static Wicks	
7	Generator circuit breakers (as required)		18	Hydraulic fluid level	
8	Oil cooler inlet clear		19	De-ice boots	
9	P2T2 condition / clear		20	Aileron and tab condition	
10	Rotate propeller and check prop deice boots		21	Flap Condition	
11	Oil bypass pin		22	Exhaust clear	

FORM 501 – MECHANIC’S PRE-FLIGHT

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ITEM	OPERATION	MECHANIC	ITEM	OPERATION	MECHANIC
Empennage Inspection					
1	Exterior hardware		6	Control surfaces and rudder tab condition	
2	Cargo door secure		7	Upper antenna	
3	Static ports clear		8	Elevator static wicks	
4	De-ice boots		9	Oxygen blow-out disc	
5	Stabilizers set-T/O				
Right Wing Inspection					
1	Exterior hardware		12	Generator circuit breakers (as required)	
2	Flap condition		13	Oil Cooler inlet clear	
3	Exhaust clear		14	Cowlings and doors secured	
4	Aileron and tab condition		15	P2T2 condition / clear	
5	Static Wicks		16	Rotate propeller and check prop de-ice boots	
6	Fuel vent clear		17	Oil filter bypass pin	
7	De-ice boots		18	Engine oil quantity	
8	Wing tank fuel cap		19	Leading edge ram air scoop clear	
9	Landing gear condition		20	Lower Antenna	
10	Brake wear		21	Fuel tank sumps condition	
11	Wheel well				
Nose Section Inspection					
1	Exterior hardware		9	Baggage doors secure	
2	OAT sensor		10	SAS vane	
3	Static ports clear		11	Windshield wipers condition	
4	Pitot tubes		12	Nose gear condition	
5	AWI quantity		13	Wheel well	
6	Engine plugs removed and stowed		14	Nose gear doors secure	
7	Spare head set		15	Hydraulic bypass pin	
8	Pitot covers Present.				

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
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LH ENGINE SN	EGT MIN (LH)	EGT MAX (LH)	FUEL QTY BEFORE RUN
	PER DSC	PER DSC	
RH ENGINE SN	EGT MIN (RH)	EGT MAX (RH)	FUEL QTY AFTER RUN
	PER DSC	PER DSC	

OPERATION		MECHANIC
Accomplish the following engine pre-start checks:		
Engine Air Inlets	Clear and Clean	
Engine Exhausts	Clear	
Engine Oil Quantity	Proper Level	
Propellers	Rotation, Condition and No Unusual Noise	
Engine Drains	Clear	
Engine Cowlings	Clear	
Engine Inlet Pressure Sensors	Condition	
Engine Inlet Temperature Sensors	Condition	

_____ **Start Time, 0% to Light Off** _____

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks	Max. 10 Sec.	SEC	SEC

_____ **Start Time, 0% to Ground Idle** _____

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks	Max. 60 Sec.	SEC	SEC

_____ **Overspeed Governor (OSG)** _____

NOTE: Wait until Oil reaches Operating Temperature.

CAUTION: DO NOT EXCEED 106% RPM. DO NOT REMAIN ON THE OSG MORE THAN 30 SECONDS.

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Max, Stabilize RPM	On Locks	103.5 to 105 %	% RPM	% RPM

The following Operational Checks are to be accomplished at the Operators discretion at each Inspection, but at a minimum when Pilot squawks dictate, when engine rigging or performance is suspect, or when changes to aircraft engine rigging are performed.

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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Flight Idle

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks		% RPM	% RPM
				F.F.	F.F.
LOW	Advance to 100%, Retard rapidly to FI	On Locks		% RPM	% RPM
				F.F.	F.F.
Does Flat straddle gate?				Yes or No	Yes or No

SRL/Temp Limiter Check

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100%	On Locks			
(A) SRL/Delta P/P Switch in Normal Position (SRL Light Extinguished) Record stable EGT				EGT	EGT
(B) Delta P/P Switch in OFF Position (EGT should increase 5° C) Delta P/P Switch in Normal Position. Record the Difference between (A-B)				EGT	EGT
(C) Pull EGT Comp C/B				EGT	EGT
Reset EGT Comp C/B				EGT	EGT
Record the Difference between (A-C)					
(D) SRL Switch in OFF Position				EGT	EGT
SRL OFF Light Illuminated				Yes or No	Yes or No
Reset SRL Switch to ON Position, Record the Difference between (A-C) The Difference between SRL OFF and Normal is 10°C MAX Difference between engines.					
S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100%	On Locks If off Locks set PL to 350 Lbs F. F.		F.F.	F.F.
Temp Limiter Switch to TEST				F.F.	F.F.
Release Temp Limiter Switch				F.F.	F.F.
By-Pass Light?				Yes or No	Yes or No

Underspeed Governor – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	MIN F.F.	On Locks	70 to 72%	% RPM	% RPM

Underspeed Governor – HIGH RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	MIN F.F.	Off Locks	96.5 to 97.5%	% RPM	% RPM

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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Reverse Low – Underspeed Governor Reset

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE	
LOW	Slowly Move to Full Reverse	Off Locks	90 % ± 2.5	% RPM	% RPM	
				% Torque	% Torque	
BETA Light On?			Yes or No	Yes or No		
P/L Symmetry?			Yes or No			

Prop Governor – HIGH RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	575°C EGT	Off Locks	100 to 101 % @ 75°C Oil Temp	% RPM	% RPM

Prop Governor – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	Advance to stable RPM	Off Locks	93.5 to 94.5% @ 75°C Oil Temp	% RPM	% RPM

Reverse Power – High RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100% RPM to Full Reverse RPM 5 Seconds max.	Off Locks		EGT	EGT
			4 % MAX Split	Torque	Torque
			95.5% MIN	% RPM	% RPM
				F.F.	F.F.
BETA Light On?				Yes or No	Yes or No
P/L Symmetry?				Yes or No	

Reverse Power – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	Slowly Move to Full Reverse	Off Locks	75 % MIN 5 % MAX Split	% RPM	% RPM
BETA Light On?				Yes or No	Yes or No
P/L Symmetry? MAX P/L Split 0.25 Inch (Determined at pedestal Cover)				Within 0.25 " Yes or No	

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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Take Off Power – Bleed Air Off

OAT:
ALT:
Chart Torque Target:

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
P/L Symmetry? MAX P/L Split 0.05 Inch (Determined at pedestal Cover)				Within 0.05 " Yes or No	

Take Off Power – Bleed Air On

OAT:
ALT:
Chart Torque Target:

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
MAX P/L Split 0.05 Inch (Determined at pedestal Cover)				Within 0.05 " Yes or No	
Calculate Torque Loss					
97% and 650°C EGT	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
MAX P/L Split 0.05 Inch @ Cruise RPM (Determined at pedestal Cover)				Within 0.05 " Yes or No	

Underspeed Governor Separation

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH then Retard until stops decreasing	100 % RPM	Off Locks	USG Separation 2.5% Min	% RPM	% RPM
	Retard to Min F.F.	Off Locks		% RPM	% RPM

Beta Light Operation

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
85%	G.I.	Off Locks	Beta Light On Before 85% (Dowty) or 90 % (McCauley)	Yes or No	Yes or No

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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AWI Operational Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH	T.O.	Normal Operation?	Yes or No	Yes or No

By-Pass Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH	Advance to max EGT, Do not exceed 660°		EGT	EGT

Flame Out Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH to LOW in less than 1 Sec.	G.I.	Flame Out	Yes or No	Yes or No
		Deceleration Time 10 Sec. MAX	Yes or No	Yes or No

Emergency Shutdown

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
LOW	75 % RPM			
Pull Stop/Feather until Red Groove is Visible		Flame Out	Yes or No	Yes or No
Stop/Feather Full Extension @ 40% RPM				
Propeller Feathered			Yes or No	Yes or No

Propeller Unfeathering Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
LOW				
Unfeather Test Switch (Prop blades move towards reverse) Propeller Blades reach full reverse – Release Test switch			Yes or No	Yes or No
	0.25 " FWD of F.I.			
Propeller returns to Start Locks			Yes or No	Yes or No

FORM 502 – POST INSPECTION ENGINE RUN CHECKLIST

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The following checks MUST be performed after each Phase prior to return to service

Post Engine Run Leak and Ops Checks

ITEM	OPERATION	MECHANIC	
1	Check operation of D.C. generators.		
2	Check operation of A.C. inverters.		
3	Perform current limiter check IAW AFM.		
4	Accomplish nose gear steering operation check.		
5	Functional check aircraft brakes.		
6	Check operation of air conditioning and heating systems.		
7	Boot Inflation Check		
8	Prop Heat Check		
9	Check operation of pressurization system.		
		LH	RH
10	Check left and right engine for evidence of fuel and oil leaks.		
11	Check left and right propeller for evidence of oil leaks.		
12	Check left and right engine oil levels. Record quantity added.		

Normal Engine Shutdown

S/L POSITION	P/L POSITION	L/H ENGINE	R/H ENGINE
LOW	G.I.		
Stop Switch – Depress for 5 Sec. RPM Increases approximately 5 % (EPA Discharge)		Yes or No	Yes or No
at 50 % retard to full reverse until RPM decreases to 10 %.			
Propeller on Start Locks		Yes or No	Yes or No
Engine Run Discrepancies			
1			
2			
3			
4			
5			
6			
7			

I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Post Inspection Engine Run Form 502 and is approved for Return to Service.

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

1 of 6

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

LH ENGINE SN	EGT MIN (LH)	EGT MAX (LH)	FUEL QTY BEFORE RUN
	PER DSC	PER DSC	
RH ENGINE SN	EGT MIN (RH)	EGT MAX (RH)	FUEL QTY AFTER RUN
	PER DSC	PER DSC	

OPERATION	MECHANIC
Accomplish the following engine pre-start checks:	
Engine Air Inlets	Clear and Clean
Engine Exhausts	Clear
Engine Oil Quantity	Proper Level
Propellers	Rotation, Condition and No Unusual Noise
Engine Drains	Clear
Engine Cowlings	Clear
Engine Inlet Pressure Sensors	Condition
Engine Inlet Temperature Sensors	Condition

_____ **Start Time, 0% to Light Off** _____

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks	Max. 10 Sec.	SEC	SEC

_____ **Start Time, 0% to Ground Idle** _____

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks	Max. 60 Sec.	SEC	SEC

_____ **Overspeed Governor (OSG)** _____

NOTE: Wait until Oil reaches Operating Temperature.

CAUTION: DO NOT EXCEED 106% RPM. DO NOT REMAIN ON THE OSG MORE THAN 30 SECONDS.

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Max, Stabilize RPM	On Locks	103.5 to 105 %	% RPM	% RPM

_____ **Flight Idle** _____

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	FI	On Locks		% RPM	% RPM
				F.F.	F.F.
LOW	Advance to 100%, Retard rapidly to FI	On Locks		% RPM	% RPM
				F.F.	F.F.
Does Flat straddle gate?				Yes or No	Yes or No

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

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SRL/Temp Limiter Check

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100%	On Locks			
(A) SRL/Delta P/P Switch in Normal Position (SRL Light Extinguished) Record stable EGT				EGT	EGT
(B) Delta P/P Switch in OFF Position (EGT should increase 5° C) Delta P/P Switch in Normal Position. Record the Difference between (A-B)				EGT	EGT
(C) Pull EGT Comp C/B				EGT	EGT
Reset EGT Comp C/B				EGT	EGT
Record the Difference between (A-C)					
(D) SRL Switch in OFF Position				EGT	EGT
SRL OFF Light Illuminated				Yes or No	Yes or No
Reset SRL Switch to ON Position, Record the Difference between (A-C) The Difference between SRL OFF and Normal is 10°C MAX Difference.					
S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100%	On Locks If off Locks set PL to 350 Lbs F. F.		F.F.	F.F.
Temp Limiter Switch to TEST				F.F.	F.F.
Release Temp Limiter Switch				F.F.	F.F.
By-Pass Light?				Yes or No	Yes or No

Underspeed Governor – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	MIN F.F.	On Locks	70 to 72%	% RPM	% RPM

Underspeed Governor – HIGH RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	MIN F.F.	Off Locks	96.5 to 97.5%	% RPM	% RPM

Reverse Low – Underspeed Governor Reset

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	Slowly Move to Full Reverse	Off Locks	90 % ± 2.5	% RPM	% RPM
				% Torque	% Torque
BETA Light On?				Yes or No	Yes or No
P/L Symmetry?				Yes or No	

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

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Prop Governor – HIGH RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	575°C EGT	Off Locks	100 to 101 % @ 75°C Oil Temp	% RPM	% RPM

Prop Governor – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	Advance to stable RPM	Off Locks	93.5 to 94.5% @ 75°C Oil Temp	% RPM	% RPM

Reverse Power – High RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	100% RPM to Full Reverse RPM 5 Seconds max.	Off Locks		EGT	EGT
			4 % MAX Split	Torque	Torque
			95.5% MIN	% RPM	% RPM
				F.F.	F.F.
BETA Light On?				Yes or No	Yes or No
P/L Symmetry?				Yes or No	

Reverse Power – Low RPM

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
LOW	Slowly Move to Full Reverse	Off Locks	75 % MIN 5 % MAX Split	% RPM	% RPM
BETA Light On?				Yes or No	Yes or No
P/L Symmetry? MAX P/L Split 0.25 Inch (Determined at pedestal Cover)				Within 0.25 " Yes or No	

Take Off Power – Bleed Air Off

OAT:
ALT:
Chart Torque Target:

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
P/L Symmetry? MAX P/L Split 0.05 Inch (Determined at pedestal Cover)				Within 0.05 " Yes or No	

Take Off Power – Bleed Air On

OAT:
ALT:
Chart Torque Target:

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

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S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
MAX P/L Split 0.05 Inch (Determined at pedestal Cover)				Within 0.05 " Yes or No	
Calculate Torque Loss					
97% and 650°C EGT	Stabilize to Chart Power Setting	Off Locks		EGT	EGT
				Torque	Torque
				% RPM	% RPM
				F.F.	F.F.
MAX P/L Split 0.05 Inch @ Cruise RPM (Determined at pedestal Cover)				Within 0.05 " Yes or No	

Underspeed Governor Separation

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
HIGH then Retard until stops decreasing	100 % RPM	Off Locks	USG Separation 2.5% Min	% RPM	% RPM
	Retard to Min F.F.	Off Locks		% RPM	% RPM

Beta Light Operation

S/L POSITION	P/L POSITION	PROP CONDITION	LIMITS	L/H ENGINE	R/H ENGINE
85%	G.I.	Off Locks	Beta Light On Before 85% (Dowty) or 90 % (McCauley)	Yes or No	Yes or No

AWI Operational Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH	T.O.	Normal Operation?	Yes or No	Yes or No

By-Pass Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH	Advance to max EGT, Do not exceed 660°		EGT	EGT

Flame Out Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
HIGH to LOW in less than 1 Sec.	G.I.	Flame Out	Yes or No	Yes or No
		Deceleration Time 10 Sec. MAX	Yes or No	Yes or No

Emergency Shutdown

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
LOW	75 % RPM			
Pull Stop/Feather until Red Groove is Visible		Flame Out	Yes or No	Yes or No
Stop/Feather Full Extension @ 40% RPM				
Propeller Feathered			Yes or No	Yes or No

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

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Propeller Unfeathering Check

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
LOW				
Unfeather Test Switch (Prop blades move towards reverse) Propeller Blades reach full reverse – Release Test switch			Yes or No	Yes or No
	0.25 " FWD of F.I.			
Propeller returns to Start Locks			Yes or No	Yes or No

Post- Inspection Engine Run Checks

Start Engine IAW AFM. Charge the EPA kit by maintaining 96% RPM Momentarily.

ITEM	OPERATION	MECHANIC	
1	Check operation of D.C. generators.		
2	Check operation of A.C. inverters.		
3	Perform current limiter check IAW AFM.		
4	Accomplish nose gear steering operation check.		
5	Functional check aircraft brakes.		
6	Check operation of air conditioning and heating systems.		
7	Boot Inflation Check		
8	Prop Heat Check		
9	Check operation of pressurization system.		
		LH	RH
10	Check left and right engine for evidence of oil leaks.		
11	Check left and right propeller for evidence of oil leaks.		
12	Check left and right engine oil levels. Record quantity added.		

Normal Engine Shutdown

S/L POSITION	P/L POSITION		L/H ENGINE	R/H ENGINE
LOW	G.I.			
Stop Switch – Depress for 5 Sec. RPM Increases approximately 5 % (EPA Discharge)			Yes or No	Yes or No
	at 50 % retard to full reverse until RPM decreases to 10 %.			
Propeller on Start Locks			Yes or No	Yes or No

FORM 503 – POST RIGGING ENGINE RUN WORKSHEET

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Engine Run Discrepancies	
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I certify that this aircraft has been inspected in accordance with the TransNorthern Aviation SA227 CAMP Post-Rigging Engine Run Form 503 and is approved for Return to Service.

TransNorthern Aviation

LIMITATIONS AND INSPECTION MANUAL

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Issued: 04-16-2021
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FORM 504 – AVIONICS INSPECTION WORKSHEET

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

This inspection is a visual and operational check. Inspect the following components for condition, defects, proper attachment and security and satisfactory operation.

SYSTEM	MECHANIC
NO. 1 COMM	
NO. 2 COMM	
NO. 1 NAV	
NO. 2 NAV	
NO. 1 ADF	
NO. 2 ADF	
DME	
Transponder	
Glideslope	
Radar	
Flight Director	
Compass System	
Autopilot	
Audio System	
Marker Beacon	
Radio Altimeter	
Flight Data Recorder	
Cockpit Voice Recorder	
Global Position System	
Enhanced Ground Proximity Warning System	
Radio Altimeter	
TAWS	
Antennas	
ADS-B	

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

FORM 601 - HEAVY NOSE SECTION INSPECTION

1 of 2

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
53-50	Remove radome.	150		N/A
32-20	Remove left and right baggage compartment floorboards.	104, 105		N/A
53-50	Inspect radome for cracks, damage, and condition of erosion boot.	N/A		N/A
NOTE: Bubbling of the radome erosion boot can cause WX radar issues.				
34-10	Inspect radar antenna and drive motor assembly for condition and security.	150		N/A
53-30	Inspect nose section skin for damage, corrosion, loose, or missing fasteners.	N/A		N/A
56-10	Inspect cockpit window frames for damage, loose, or missing screws and cracks.	N/A		N/A
56-10	Inspect cockpit windows for damage, crazing, and general condition.	N/A		N/A
56-10	Inspect cockpit heated windshield weather seal for damage and condition.	N/A		N/A
52-30	Inspect left and right nose compartment doors for alignment, condition, security, and operation of hinges and locks.	N/A		N/A
34-10	Inspect static ports for condition, cleanliness, and placarding.	N/A		N/A
27-30	Inspect SAS vane for freedom of movement, condition, and security.	N/A		N/A
82-00	Inspect CAWI filler cap for condition and security.	N/A		N/A
34-10	Inspect pitot head mast, base and plumbing for obstruction, condition and security.	N/A		N/A
33-30	Inspect nose baggage lights and auxiliary system for condition and security.	N/A		N/A
34-00	Inspect nose compartment avionics equipment and wiring for condition and security.	N/A		N/A
30-41	Inspect windshield wiper motor and flex drives for condition and security.	N/A		N/A
30-40	Inspect windshield wiper control assembly for condition and security.	N/A		N/A
33-40	Inspect taxi light relay for condition and security.	N/A		N/A
32-41	Inspect brake fluid reservoir for fluid level, evidence of leakage, condition, and security. Verify correct placarding on exterior skin.	N/A		N/A
32-42	Remove anti-skid brake control box hydraulic cover.	N/A		N/A
32-42	Check brake anti-skid plumbing for evidence of leaks, security, and condition.	N/A		N/A
82-10	Inspect CAWI tank and sight gauge for evidence of leakage, condition, and security.	N/A		N/A

FORM 601 - HEAVY NOSE SECTION INSPECTION

2 of 2

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
30-30	Inspect pitot shunts and wiring for condition and security.	N/A		N/A
21-20	Inspect fresh air blower ducting and check valve for condition and security.	N/A		N/A
27-30	Inspect SAS airspeed switch, wiring, and plumbing for condition and security.	N/A		N/A
82-20	Inspect CAWI pumps, pressure switches, and plumbing for evidence of leakage, condition, and security.	N/A		N/A
82-21	Inspect CAWI metering valve (if installed in baggage compartment) for evidence of leakage, condition, and security.	104		N/A
32-30	Inspect nose gear drag link attach fittings below nose baggage compartment floors for condition and security.	N/A		N/A
34-00	Inspect pitot drains for condition and security.	N/A		N/A
23-00	Check avionics equipment for condition and security.	N/A		N/A
23-00	Check avionics electrical wiring, connectors, and co-axial cables for condition and security.	N/A		N/A
53-50	Install radome and inspect for fit.	150		N/A
32-20	Install baggage compartment floorboards.	104, 105		N/A
32-40	Install antiskid hydraulic brake access cover.	N/A		N/A
30-30	Functional check pitot heat.	N/A		N/A
30-10	Conduct operational check of SAS vane heat and annunciation.	N/A		N/A
21-20	Functional check operation of fresh air blower.	N/A		N/A

FORM 602 - LIGHT CABIN DOOR INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
52-10	Inspect chains (or cables) for adjustment.	N/A		N/A
52-10	Inspect hinge for condition and security.	N/A		N/A
52-10	Inspect door seal for deterioration, cuts, and proper contact between the seal and airframe.	N/A		N/A
52-10	Inspect seal supply line at door to airframe for condition.	N/A		N/A
52-10	Inspect door structure for cracks, loose rivets, and general condition.	N/A		N/A
52-10	Inspect inner and outer handles for operation, adjustment, and fit.	N/A		N/A
52-10	Inspect door snubber/gas spring for evidence of leakage and security.	N/A		N/A
52-10	Inspect bayonets/click-clacks for burrs, nicks and security; clean and lubricate.	N/A		N/A
52-10	Inspect click-clack jaws for proper operation.	N/A		N/A
52-10	Inspect fuselage door frame for general condition.	N/A		N/A
52-10	Check plastic latch inspection port covers for condition.	205, 207, 209, 211, 213, 215		N/A
52-10	Inspect teflon guide blocks for condition and security.	N/A		N/A
52-10	Check bayonet/click-clack receptacles for wear, elongation, cracks, condition, and security.	N/A		N/A
52-10	Inspect entrance light for operation.	N/A		N/A
52-10	Close door and check for fit.	N/A		N/A
52-10	Inspect cabin door warning lights for operation.	N/A		N/A

FORM 603 - HEAVY CABIN DOOR INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
52-10	Remove trim, upholstery, step assembly and panels for inspection.	201,203,205,207, 209, 211,213, 215,		N/A
52-00	Inspect chains (or cables) and handrails for proper adjustment, condition, and security.	N/A		N/A
52-10	Inspect hinge for cracks, corrosion, loose fasteners, condition, and security.	N/A		N/A
52-10	Inspect door seal for deterioration, cuts, proper contact or voids between the seal and airframe.	N/A		N/A
36-00	Inspect seal supply line at door and airframe for condition and security.	N/A		N/A
52-10	Inspect door structure and skin for cracks, loose rivets, wrinkles, structural integrity, general condition, and security.	N/A		N/A
52-10	Inspect inner and outer handles for proper operation, adjustment, fit, condition, and security.	N/A		N/A
52-10	Inspect door snubber(s)/gas springs for evidence of leakage, proper operation, condition, and security.	N/A		N/A
52-10	Inspect snubber/gas spring hardware and attachment brackets for condition and security.	N/A		N/A
52-10	Inspect latch inspection port covers for condition and security.	N/A		N/A
52-10	Inspect teflon guide blocks for condition and security.	N/A		N/A
52-00	Inspect door frame for condition and security.	N/A		N/A
52-10	Inspect internal mechanism, bayonets or click clacks and linkages for loose, frozen, corroded, and bent rod ends or loose jam nuts.	N/A		N/A
52-10	Inspect bellcrank assemblies for operation, condition, and security.	N/A		N/A
52-00	Inspect door seal valve and actuating mechanism for proper engagement, operation, condition, and security.	225		N/A
52-00	Inspect bayonets or click clacks for gouges, nicks, deformation, general condition, and security. Clean and lubricate.	N/A		N/A
52-10	Check bayonets/click-clack receptacles for wear, elongation, cracks, condition, and security.	N/A		N/A
33-20	Inspect entrance lights for operation, condition, and security.	N/A		N/A
52-70	Inspect cabin door open warning system and switches for operation.	N/A		N/A
52-10	Close door and inspect for fit.	N/A		N/A
52-10	Install all removed items and inspect for proper fit.	N/A		N/A

FORM 604 - HEAVY FLIGHT COMPARTMENT INSPECTION

1 of 4

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
31-10	Remove glareshield.	351		N/A
25-10	Remove pilot and copilot seats.	N/A		N/A
39-20	Remove left and right console panels.	321, 322		N/A
27-00	Remove left and right control column panels.	303, 304		N/A
27-10	Remove floorboards.	325-330, 356, 357		N/A
30-41	Inspect windshield wiper blades and arms for condition and security.	N/A		N/A
56-00	Inspect left and right heated windshields for cracks, crazing, scratches, blemishes, mark-offs, and delamination in inner and outer panes.	N/A		N/A
56-00	Inspect windows and windshield structures, retainers, and fasteners for condition and security.	N/A		N/A
56-10	Inspect center windshield and side windows for cracks, crazing, scratches, blemishes, and mark-offs.	N/A		N/A
21-30	Inspect cabin pressurization controller for condition and security.	311 or 312		N/A
27-30	Inspect SAS indicator and wiring for evidence of arcing, condition, and security.	351		N/A
34-20	Inspect magnetic compass for legibility of markings, condition, and security.	351		N/A
34-10	Inspect airspeed indicators for legibility of markings, condition, and security.	311, 312		N/A
34-10	Inspect altimeters for legibility of markings, condition, and security.	311, 312		N/A
34-10	Inspect rate of climb indicators for legibility of markings, condition, and security.	311, 312		N/A
34-20	Inspect turn and slip indicators for legibility of markings, condition, and security.	311, 312		N/A
37-20	Inspect vacuum gauge for legibility of markings, condition, and security.	N/A		N/A
73-30	Inspect fuel flow indicator and totalizer for legibility of markings, condition, and security.	311, 312		N/A
34-10	Inspect OAT indicator for legibility of markings, condition, and security.	N/A		N/A
35-00	Inspect oxygen pressure indicator for legibility of markings, condition, and security.	N/A		N/A
34-10	Inspect operation of alternate static selector.	N/A		N/A

FORM 604 - HEAVY FLIGHT COMPARTMENT INSPECTION

2 of 4

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
37-10	Inspect instrument panel and sub-panels, placards, shock mounts, instrument plumbing, electrical wiring, and components for condition and security.	N/A		N/A
21-30	Inspect manual pressure rate controller and auto/manual pressure selector valve for freedom of operation, condition, and security.	N/A		N/A
27-30	Inspect control column for freedom of operation, condition, and security.	327, 328		N/A
27-30	Inspect control column damper for leaks, security, and service IAW AMM.	N/A		N/A
27-10	Inspect both aileron control wheels for condition, security and smooth operation of bearings and control chains within the control column.	303, 304 If Installed		N/A
27-30	Inspect control wheel switches and wiring for condition and security.	N/A		N/A
27-10	Inspect aileron trim wheel for freedom of movement and operation. Check for streamline of aileron trim tabs when aileron trim wheel is in neutral position.	355		N/A
27-20	Inspect rudder trim wheel for freedom of movement and operation. Check for streamline of rudder trim tabs when rudder trim wheel is in neutral position.	355		N/A
27-70	Inspect operation of gust lock system.	353		N/A
33-00	Inspect all cockpit lighting for evidence of arcing at rheostats, light assemblies and switches.	315, 316		N/A
31-30	Inspect annunciator panel for proper labeling and lighting.	N/A		N/A
35-00	Inspect oxygen outlets and dust covers for condition and security.	307, 308		N/A
35-00	Inspect oxygen valve for condition and security.	308		N/A
35-00	Plug an oxygen mask hose fitting into the pilot and copilot outlets and check for flow by breathing through mask.	307, 308		N/A
35-00	Inspect landing gear handle override for operation.	355		N/A
32-30	Inspect cockpit/cabin bulkhead divider for condition and security.	309, 310		N/A
25-10	Inspect crew seat belts and shoulder harnesses for security of attachment, operation and fraying.	N/A		N/A
25-10	Inspect pilot's and copilot's seat tracks for condition and security.	N/A		N/A
25-10	Inspect fire extinguisher for evidence of discharge, presence of inspection tag, condition and security.	351		N/A
24-50	Inspect J-Box bus wire terminations for corrosion, evidence of arcing, condition and security.	335, 337		N/A
82-20	Inspect power lever switches for proper adjustment, condition and security of electrical connections.	353		N/A

FORM 604 - HEAVY FLIGHT COMPARTMENT INSPECTION

3 of 4

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
76-10	Inspect power control cable hardware for proper installation, condition and security.	N/A		N/A
27-20	Inspect rudder pedals and linkage for operation, condition and security. Check rudder pedals for cracks.	N/A		N/A
32-50	Inspect nose wheel steering rudder pedal pots, rods, rod ends, gear, drive gear arm and electrical connector.	N/A		N/A
27-20	Lubricate rudder pedal fittings.	N/A		N/A
33-10	Inspect lighting power supplies for condition and security.	321, 322		N/A
33-30	Inspect auxiliary lighting relay and wiring for condition and security.	353		N/A
33-43	Inspect landing and recognition light relays for condition and security.	321		N/A
27-30	Inspect SAS computer and idle control box for condition and security.	324		N/A
27-30	Inspect SAS control box for condition and security.	N/A		N/A
32-50	Inspect nose wheel steering amplifier and electrical connector for condition and security.	321		N/A
82-20	Inspect CAWI control box for condition and security.	321		N/A
73-30	Inspect fuel flow signal conditioner for condition and security.	321		N/A
24-00	Inspect all Bus-Tie switches for condition, security, and evidence of overheating.	322, 358		N/A
27-50	Inspect gear/flap control box for condition and security.	N/A		N/A
61-20	Inspect propeller synchrophaser control box for condition and security.	N/A		N/A
31-10	Inspect insulation behind instrument panel for condition and security. Replace if contaminated.	325-330, 356, 357		N/A
34-10	Inspect static lines, pitot lines and manifolds for kinks, cracks, condition and security.	N/A		N/A
30-40	Inspect windshield wiper converter, transmission, and flex drive assembly for condition and security.	311		N/A
30-40	Inspect windshield heat control relays and temperature controls for condition and security.	325		N/A
30-40	Inspect windshield defog fan motor for operation, condition and security.	352		N/A
21-30	Inspect pressurization dump valve for condition and security. Check cabin sense filter screen and clean as required.	311		N/A
21-30	Inspect cabin altitude warning switch and wiring for condition and security.	313		N/A
30-60	Inspect propeller deice timers, relays and wiring for condition and security.	N/A		N/A

FORM 604 - HEAVY FLIGHT COMPARTMENT INSPECTION

4 of 4

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
29-10	Inspect fluid containment bags for evidence of leakage, proper routing, condition, and security.	321, 339		N/A
27-10	Operate flight controls and check cables, pulleys, fairleads, rods, turnbarrels, and attachments for condition and security.	N/A		N/A
29-20	Inspect emergency hydraulic hand pump for evidence of leakage, condition and security.	329		N/A
29-20	Inspect emergency gear selector valve for evidence of leakage, condition and security.	329		N/A
29-20	Inspect hydraulic pressure relief valve for evidence of leakage, condition and security.	329		N/A
32-30	Inspect landing gear emergency release handle for condition and security.	330		N/A
32-30	Inspect landing gear emergency release cables for condition, routing and security.	325-332, 356		N/A
80-00	Inspect #1 start control relays and electrical connections for condition and security.	327		N/A
31-10	Install glareshield and check for fit.	351		N/A
25-10	Install pilot and copilot seats.	N/A		N/A
39-20	Install left and right console panels.	321, 322		N/A
27-10	Install floorboards.	325-330, 356, 357		N/A
27-10	Install left and right control column panels.	303, 304		N/A
30-40	Functional check windshield wipers.	N/A		N/A
30-43	Functional check heated windshield operation in high and low positions.	N/A		N/A
27-70	Functional check gust lock system.	N/A		N/A
33-00	Functional check cockpit lighting.	N/A		N/A
31-30	Functional check annunciator and fire warning press-to-test.	N/A		N/A
21-30	Perform Operational check SAS system IAW AFM.	N/A		N/A
27-10	Functional check flight controls.	N/A		N/A

FORM 605 - HEAVY CABIN & FUSELAGE INSPECTION

1 of 2

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
25-20	Inspect seats and seatbelts for general condition and operation. Inspect Seatbelts for legible TSO tags and ensure each seat has a life vest secured in the pouch.	N/A		N/A
33-20	Inspect FASTEN SEAT BELT / NO SMOKING signs for illumination, condition and security.	N/A		N/A
56-00	Inspect windows for condition, crazing, scratches, hazing, blemishes, distortion and cracks.	N/A		N/A
21-60	Inspect temperature controller for condition and security. Check operation of controller fan.	N/A		N/A
25-20	Inspect floor mats, upholstery, trim, and moldings for condition and security.	N/A		N/A
26-60	Inspect cabin fire extinguisher for evidence of discharge, current weight check inspection tag, condition and security.	N/A		N/A
52-20	Remove emergency exit hatches.	420-422		N/A
52-20	Inspect emergency exit hatch seals, latches, and frames for condition, corrosion and security.	420-422		N/A
52-20	Inspect fuselage emergency escape hatch doubler for condition and corrosion.	420-422		N/A
52-20	Reinstall emergency exit hatches.	420-422		N/A
52-20	Inspect emergency exit seals, latches, and frames for condition and security.	N/A		N/A
33-20	Inspect aisle lights for operation, condition and security.	N/A		N/A
33-20	Inspect passenger lighting for operation, condition and security.	N/A		N/A
35-00	Inspect passenger oxygen outlets and dust covers for cleanliness, condition and security.	460, 461		N/A
35-00	Plug an oxygen mask hose fitting into a passenger outlet and check for oxygen flow. Check all outlets for flow.	460, 461		N/A

FORM 605 - HEAVY CABIN & FUSELAGE INSPECTION

2 of 2

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
53-20	Remove center aisle floorboards.	450-459		N/A
24-00	Inspect all exposed wiring and attachments under floor-boards for condition and security.	450-459		N/A
27-00	Inspect condition of control cables, pulleys, bellcranks, fairleads, and turnbuckles.	450-459		N/A
53-10	Inspect cabin drain valves for condition.	450-459		N/A
53-20	Inspect all stringers, formers, inside skin and floor structure for damage and condition.	450-459		N/A
23-20	Inspect antenna leads and connections for condition and security.	450-459		N/A
27-30	Inspect SAS stick pusher and capstan for condition and security.	453		N/A
27-70	Inspect aileron gust lock assembly.	455		N/A
53-00	Inspect fuselage skin for signs of cracks, deterioration, loose rivets, evidence of pressure leaks and condition.	N/A		N/A
53-00	Inspect fuselage ice guards at the prop arc for condition and security.	N/A		N/A
56-22	Inspect cabin window outer retainers.	N/A		N/A
53-20	Install center aisle floorboards.	N/A		N/A
23-00	Conduct a functional check of PA system. Check for quality and volume. Check speakers individually.	N/A		N/A

FORM 606 - LIGHT LANDING GEAR INSPECTION

1 of 3

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	OPERATION	PANEL	MECHANIC	RII or CC
Inspect LH MLG as follows:				
N/A	Inspect Tires for Condition.	N/A		N/A
N/A	Inspect Brakes for Condition and Wear.	N/A		N/A
54-10	Inspect keelson for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	N/A		N/A
32-30	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A
32-30	Inspect gear support trunnions for cracks, damage, condition and security.	N/A		N/A
32-30	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-30	Inspect follower arm, shear bolt, and safety wire for condition and security.	N/A		N/A
32-10	Inspect drag brace for condition and security.	N/A		N/A
32-10	Inspect strut for cracks, damage, evidence of leakage, condition and security.	N/A		N/A
32-00	Inspect all bolts on gear assembly for condition and security.	N/A		N/A
32-10	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-30	Inspect gear door hinges, release hooks and stops for condition and security.	N/A		N/A
32-10	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-30	Inspect pulleys, pulley brackets, and down lock springs for condition and security.	N/A		N/A
32-30	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
24-30	Inspect wheel well circuit breakers and moisture protection covers for condition and security.	N/A		N/A
26-10	Inspect fire detector for mounting, wiring, condition and security.	N/A		N/A

FORM 606 - LIGHT LANDING GEAR INSPECTION

2 of 3

ATA	OPERATION	PANEL	MECHANIC	RII or CC
Inspect RH MLG as follows:				
N/A	Inspect Tires for Condition.	N/A		N/A
N/A	Inspect Brakes for Condition and Wear.	N/A		N/A
54-10	Inspect keelson for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	N/A		N/A
32-30	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A
32-30	Inspect gear support trunnions for cracks, damage, condition and security.	N/A		N/A
32-30	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-30	Inspect follower arm, shear bolt, and safety wire for condition and security.	N/A		N/A
32-10	Inspect drag brace for condition and security.	N/A		N/A
32-10	Inspect strut for cracks, damage, evidence of leakage, condition and security.	N/A		N/A
32-00	Inspect all bolts on gear assembly for condition and security.	N/A		N/A
32-10	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-30	Inspect gear door hinges, release hooks and stops for condition and security.	N/A		N/A
32-10	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-30	Inspect pulleys, pulley brackets, and down lock springs for condition and security.	N/A		N/A
32-30	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
32-60	Inspect all switches and wiring for chafing, condition and security.	N/A		N/A
24-30	Inspect wheel well circuit breakers and moisture protection covers for condition and security.	N/A		N/A
26-10	Inspect fire detector for mounting, wiring, condition and security.	N/A		N/A

FORM 606 - LIGHT LANDING GEAR INSPECTION

3 of 3

ATA	OPERATION	PANEL	MECHANIC	RII or CC
Inspect NLG as follows:				
54-30	Inspect nose section for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	N/A		N/A
32-60	Inspect all switches and wiring for chafing, condition and security.	N/A		N/A
32-20	Inspect gear support trunnions for cracks, damage, condition and security.	N/A		N/A
32-20	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A
32-20	Inspect drag brace for condition and security.	N/A		N/A
32-20	Inspect all bolts on gear assembly for condition and security.	N/A		N/A
32-20	Inspect struts for cracks, damage, evidence of leakage, condition and security.	N/A		N/A
32-30	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-30	Inspect pulleys, pulley brackets, and down lock springs for condition and security.	N/A		N/A
32-30	Inspect gear door hinges for condition and security.	N/A		N/A
32-20	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-30	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-20	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
32-50	Inspect nose wheel steering follow-up assembly and electrical connections for condition and security.	N/A		N/A
33-40	Inspect taxi light cut-out switch for operation, condition and security.	N/A		N/A
N/A	Inspect Tires for Condition.	N/A		N/A
33-30	Inspect manual uplock release system for condition and security.	N/A		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

1 of 6

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect LH MLG as follows:				
07-10	Jack aircraft.	N/A		N/A
54-30	Remove inspection plates in wheel well.	509, 511, 513, 515, 517, 519, 525, 529		N/A
06-10	Remove inspection panels on nacelles. Reference Chapter 4, pages 4-25 thru 4-29.	910, 911, 919, 920		N/A
29-10	Remove power pack access cover.	551		N/A
N/A	Inspect Tires for Condition.	N/A		N/A
N/A	Inspect brakes for condition and Wear.	N/A		N/A
54-10	Inspect upper and lower engine attach fittings aft of firewall for evidence of loose bolts, fretting, condition and security.	551		N/A
54-30	Inspect keelson for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
29-10	Inspect all hydraulic lines in hydraulic power pack area for evidence of leakage, chafing, condition and security.	N/A		N/A
29-10	Inspect hydraulic accumulator for charge, condition and security.	N/A		N/A
29-30	Inspect hydraulic pressure warning switches for evidence of leakage, condition and security.	551		N/A
29-10	Inspect hydraulic power pack, check valves, and attaching lines for chafing, condition and security.	551		N/A
29-10	Inspect filler assembly, sight gauge and plumbing for evidence of leakage, chafing, condition and security.	551		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	551		N/A
29-10	Inspect hydraulic pressure transducer for condition and security.	N/A		N/A
28-20	Inspect fuel shut-off valve and fluid containment bag for operation, condition and security.	N/A		N/A
32-60	Inspect wheel well switches and wiring for chafing, condition, and security.	N/A		N/A
24-00	Inspect wheel well circuit breakers and moisture protection covers for condition and security.	N/A		N/A
26-10	Inspect fire detector for mounting, wiring, condition and security.	N/A		N/A
21-10	Inspect bleed air flow control valve and plumbing for condition and security.	N/A		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

2 of 6

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
78-00	Inspect tail pipe and thermal blanket for condition and security.	N/A		N/A
29-10	Inspect hydraulic shut-off valve for leaks and operation.	513		N/A
27-50	Inspect flap lock out valve for condition and security.	N/A		N/A
32-10	Inspect gear support trunnions for cracks, damage, condition and security.	N/A		N/A
32-10	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A
32-10	Inspect drag brace for condition and security.	N/A		N/A
32-10	Remove drag brace to strut pins. Inspect for condition, clean, lubricate, and reinstall.	N/A		
32-10	Inspect bolts on gear assembly for condition and security.	N/A		N/A
32-10	Inspect struts for damage, evidence of leakage, condition and security.	N/A		N/A
32-10	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-10	Remove uplock roller assembly and inspect bolt shank for excessive wear. Install uplock roller assy.	N/A		N/A
32-10	Inspect follower arm, shear bolt, and safety wire for condition and security.	N/A		N/A
32-10	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-30	Inspect landing gear and gear door rigging.	N/A		N/A
33-30	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-41	Inspect brakes for wear and brake torque keys for condition and security.	N/A		N/A
32-20	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
30-60	Inspect prop shunt and wiring for condition and security.	N/A		N/A
32-10	Inspect rivet securing tang to door actuator arm for security.	511		N/A
32-60	Inspect door position warning switches for condition and security.	N/A		N/A
32-10	Inspect trunnion bushing assembly nuts for condition and security.	910, 911, 919, 920		N/A
54-30 06-10	Install all inspection panels.	509,511,513,515, 517,519,525,529,910,911,919,920		N/A
29-10	Install power pack access cover.	551		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect RH MLG as follows:				
54-30	Remove inspection panels in wheel well.	510, 512, 514, 516, 518, 520, 532, 534		N/A
06-10	Remove inspection panels on nacelles. Reference Chapter 5, Pages 4-25 thru 4-29.	910, 911, 919, 920		N/A
24-30	Remove start control access panel.	550		N/A
N/A	Inspect Tires for Condition.	N/A		N/A
N/A	Inspect brakes for Condition and Wear.	N/A		N/A
54-10	Inspect upper and lower engine attach fittings aft of firewall for evidence of loose bolts, fretting, condition and security.	550		N/A
54-30	Inspect keelson for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
24-30	Inspect bus wire terminations at series/parallel relay, terminals of both starter relays, start control relays, generator ground wires, generator shunt, and general condition of start control panel.	N/A		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	N/A		N/A
28-20	Inspect fuel shut-off valve and fluid containment bag for operation, condition and security.	N/A		N/A
28-20	Inspect fuel lines and connections for evidence of leakage, condition and security.	N/A		N/A
32-60	Inspect wheel well switches and wiring for chafing, condition, and security.	N/A		N/A
24-00	Inspect wheel well circuit breakers and moisture protection covers for condition and security.	N/A		N/A
26-10	Inspect fire detector for mounting, wiring, condition and security.	N/A		N/A
21-10	Inspect bleed air flow control valve and plumbing for condition and security.	N/A		N/A
21-10	Inspect bleed air solenoid for condition and security.	N/A		N/A
78-00	Inspect tail pipe and thermal blanket for condition and security.	N/A		N/A
29-10	Inspect hydraulic shut-off valve for leaks and operation.	514		N/A
27-50	Inspect flap lock out valve for condition and security.	N/A		N/A
32-10	Inspect gear support trunnions for cracks, damage, condition and security.	N/A		N/A
32-10	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
32-10	Inspect drag brace for condition and security.	N/A		N/A
32-10	Remove drag brace to strut pins. Inspect for condition, clean, lubricate, and reinstall.	N/A		
32-10	Inspect all bolts on gear assembly for condition and security.	N/A		N/A
32-10	Inspect struts for cracks, damage, evidence of external leakage, condition and security.	N/A		N/A
32-10	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-10	Remove uplock roller assembly and inspect bolt shank for excessive wear. Install uplock roller assy.	N/A		N/A
32-10	Inspect follower arm, shear bolt, and safety wire for condition and security.	N/A		N/A
32-10	Inspect pulleys, pulley brackets, down lock springs for condition and security.	N/A		N/A
32-30	Inspect gear door hinges, release hooks and stops for condition and security.	N/A		N/A
32-10	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-30	Inspect landing gear and gear door rigging.	N/A		N/A
32-30	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-41	Inspect brakes for wear and brake torque keys for condition and security.	N/A		N/A
32-20	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
32-60	Inspect prop shunt and wiring for condition and security.	512		N/A
32-10	Inspect rivet securing tang to door actuator arm for security.	N/A		N/A
32-60	Inspect gear door warning switches for condition and security.	N/A		N/A
32-10	Inspect trunnion bushing assembly nuts for condition and security.	910, 911, 919, 920		N/A
54-30 06-10	Install all inspection panels.	510, 512, 514, 516, 518, 520, 532, 534, 910, 911, 919, 920		N/A
23-30	Install start control panel access cover.	550		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

5 of 6

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect NLG as follows:				
32-50	Remove nose wheel steering follow-up pot dust cover.	N/A		N/A
32-50	Inspect nose gear steering actuator for evidence of leakage, condition and security.	N/A		N/A
NOTE: CONNECTOR PLUGS SHOULD BE CLEANED WITH AN APPROVED ELECTRICAL CONTACT CLEANER AS NECESSARY ANYTIME THEY ARE DISCONNECTED.				
32-50	Inspect nose wheel steering follow-up assembly and electrical connectors for condition and security.	N/A		N/A
32-50	Disconnect servo connector plug and check condition of plug and pins. Install connector and safety wire.	N/A		N/A
32-50	Disconnect arming valve connector plug and check condition of connector plug and pins. Install connector and safety wire.	N/A		N/A
32-50	Inspect wiring harness for proper clamping, routing, condition, deterioration, and chafing.	N/A		N/A
32-50	Disconnect P1 connector in wheel well. Check condition of pins and connector. Check for corrosion. Install connector and safety wire.	N/A		N/A
32-50	Inspect nose wheel well ground wires for condition, security and corrosion.	N/A		N/A
32-50	Install nose wheel steering follow-up pot dust cover.	N/A		N/A
32-50	Inspect nose wheel steering fail pressure switch (or bypass relief valve) for evidence of leakage, condition and security.	N/A		N/A
32-50	Disconnect pressure switch (or bypass relief valve) connector and check condition of pins and connector. Install connector and safety wire.	N/A		N/A
32-50	Inspect actuator anti-cavitation plumbing for leaks, condition and security.	N/A		N/A
54-30	Inspect nose section for evidence of buckling, distortion, cracking, loose fasteners, condition and security.	N/A		N/A
29-10	Inspect hydraulic components and attaching lines or flex hoses in wheel well for evidence of leaks, chafing, condition and security.	N/A		N/A
32-60	Inspect all switches and wiring for chafing, condition and security.	N/A		N/A
N/A	Inspect tires for Condition.	N/A		N/A
32-20	Inspect gear support Trunnion for cracks, damage, condition and security.	N/A		N/A
32-20	Inspect actuator bellcranks, rollers, bushings, and positioning cams for condition and security.	N/A		N/A
32-20	Inspect drag brace for condition and security.	N/A		N/A

FORM 607 - HEAVY LANDING GEAR INSPECTION

6 of 6

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
32-20	Remove drag brace to strut pins. Inspect for condition, clean, lubricate and reinstall.	N/A		
32-20	Inspect all bolts on gear assembly for condition and security.	N/A		N/A
32-20	Inspect struts for cracks, damage, evidence of leakage, condition and security.	N/A		N/A
32-30	Inspect uplock hook assembly for condition and security.	N/A		N/A
32-30	Remove uplock roller and inspect bolt shank for excessive wear. Install uplock roller assembly.	N/A		N/A
32-30	Inspect pulleys, pulley brackets, down lock springs for condition and security.	N/A		N/A
32-30	Inspect gear door hinges for condition and security.	N/A		N/A
32-20	Inspect gear door actuator, springs, roller and bearings for freedom of movement, condition and security.	N/A		N/A
32-20	Inspect landing gear and gear door rigging.	N/A		N/A
32-30	Inspect gear door bulb seals for condition and security.	N/A		N/A
32-20	Inspect scissors and bushings for wear, condition and security.	N/A		N/A
33-40	Inspect taxi light cut out switch for condition and security.	N/A		N/A
33-30	Inspect manual uplock release system for condition and security.	N/A		N/A
Perform Functional Check of Landing Gear as follows:				
32-30	Conduct operational check of landing gear: Normal mode.	N/A		N/A
32-30	Conduct operational check of landing gear: Emergency mode.	N/A		N/A
29-10	Perform hydraulic power pack integrity check.	N/A		N/A
32-60	Check door position indication and gear warning system.	N/A		N/A
07-10	Lower aircraft and remove jacks.	N/A		N/A
32-50	Perform nose wheel steering system Static/Hanger Check.	N/A		N/A
NOTE: MONITOR SYSTEM FOR FAULTS DURING FUNCTIONAL CHECK WHILE DISTURBING WIRING HARNESS IN NOSE WHEEL WELL TO ENSURE INTEGRITY OF CONNECTORS.				

FORM 608 - LIGHT WING/CENTER SECTION INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
21-00	Remove left and right water separator panels.	615, 616, 619, 620		N/A
21-70	Remove left water separator sock. Clean or replace as necessary.	615, 619		N/A
21-70	Install left water separator sock.	N/A		N/A
21-70	Remove right water separator sock. Clean or replace as necessary.	616, 620		N/A
21-70	Install right water separator sock.	N/A		N/A
21-00	Install left and right water separator panels.	615, 616, 619, 620		N/A
27-50	Clean and lube left flap actuator.	N/A		N/A
27-50	Clean and lube right flap actuator.	N/A		N/A
28-10	Inspect center section for evidence of fuel, oil, AWI fluid, or hydraulic fluid leaks.	N/A		N/A
36-00	Inspect pneumatic system filter and dryer, if installed. (Replace dryer when blue crystals turn pink)	611, 612		N/A
57-30	Inspect fairings for condition and security.	N/A		N/A
30-10	Inspect wing leading edge by feeling to detect possible impact damage that may be hidden by the deice boots.	N/A		N/A
25-50	Inspect static wicks for condition and security.	N/A		N/A
27-10	Inspect ailerons for damage and loose or missing fasteners.	N/A		N/A
27-10	Inspect aileron tabs, actuator, chains, cables and stops for condition and security.	N/A		N/A
57-00	Inspect rear spar web for corrosion, evidence of fuel leakage, condition and security.	N/A		N/A

FORM 609 - HEAVY WING/CENTER SECTION INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
57-10	Remove lower wing extension panels.	679, 680		N/A
57-30	Remove designated access panels between nacelles.	603-612, 615, 616, 619, 620, 623-626, 692, 693		N/A
21-70	Remove left water separator sock. Clean or replace as necessary.	619		N/A
52-30	Remove right water separator sock. Clean or replace as necessary.	620		N/A
27-10	Lube left aileron trim actuator.	N/A		N/A
27-10	Lube right aileron trim actuator.	N/A		N/A
21-50	Lube right flap actuator.	N/A		N/A
21-50	Lube left flap actuator.	N/A		N/A
37-10	Remove and clean vacuum regulator valve filter.	603		N/A
37-10	Inspect regulator for condition and security.	603		N/A
27-50	Remove flap interconnect center bolt and bearing.	611, 612		N/A
57-00	Inspect lower wing structure for loose rivets and general condition.	N/A		N/A
57-10	Inspect wing extension bolts for condition and security.	679, 680		N/A
57-20	Inspect wing tips, wing position lights for condition and security, and lenses for cracking, crazing, and erosion damage.	687, 688		N/A
28-10	Inspect fuel vents and plumbing for obstruction and condition.	677, 678		N/A
30-10	Inspect wing deice boots for damage or deterioration. Clean and service as required.	N/A		N/A
30-10	Inspect wing leading edge by feel to detect possible impact damage that may be hidden by deice boots.	N/A		N/A
57-10	Inspect inboard wing leading edge skin and wire feed-through doubler at W.S. 78 for cracks.	623, 624		N/A
28-10	Inspect fuel caps for condition and security.	N/A		N/A
57-00	Inspect top of front and rear spar for loose rivets and general condition.	N/A		N/A
57-00	Inspect wing skin for signs of cracks, deterioration, loose rivets, fuel leaks and general condition.	N/A		N/A
27-10	Check aileron free play.	N/A		N/A
27-10	Inspect ailerons, hinges and hinge brackets for wear, cracks, defective bearings, condition and security.	N/A		N/A
27-10	Inspect aileron bonding straps for condition and security.	N/A		N/A

FORM 609 - HEAVY WING/CENTER SECTION INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
27-10	Inspect aileron bonding straps for condition and security.	N/A		N/A
27-10	Inspect aileron push-pull rods and bellcranks for condition and security.	N/A		N/A
WARNING: VERIFY AILERON BELLCRANK/PUSH-PULL ROD ATTACHING BOLTS ARE INSTALLED WITH BOLT HEADS UP AND A MINIMUM CLEARANCE OF 0.250 INCH EXISTS BETWEEN TIP OF BOLTS AND ACCESS PANEL. FAILURE TO COMPLY WITH THIS WARNING MAY RESULT IN LOSS OF AILERON CONTROL INFLIGHT.				
27-10	Check aileron trim tab free play.	N/A		N/A
27-10	Inspect aileron fixed and moveable tabs for structural integrity.	N/A		N/A
27-10	Inspect aileron trim actuators, chains, pulleys, fairleads, cables and stops for condition and security.	N/A		N/A
27-10	Inspect flap bonding straps for condition and security.	N/A		N/A
27-50	Inspect flap position transmitters, FDR flap position transmitter and SAS flap compensators for operation, condition and security.	611, 612		N/A
27-50	Check flap free play.	N/A		N/A
27-50	Inspect flaps, hinges, and hinge brackets for structural integrity, cracks, buckling, wrinkling, defective bearings, condition and security.	N/A		N/A
27-50	Inspect flap actuator and hydraulic lines for evidence of leakage, condition and security.	N/A		N/A
57-00	Inspect rear spar for evidence of fuel leaks, corrosion, and condition.	N/A		N/A
27-50	Inspect flap interconnect bolt and bearing for condition.	611, 612		N/A
27-50	Inspect operation of both flaps for proper extension and retraction.	633, 634		N/A
23-60	Inspect static wicks for proper bonding, condition and security.	N/A		N/A
28-40	Inspect Magna stick for condition and security.	615		N/A
37-20	Inspect vacuum warning switch for condition and security.	623, 624		N/A
21-50	Inspect ram air intake and duct to heat exchanger for condition and security.	N/A		N/A
21-50	Inspect ram air-to-heat exchanger transition duct and operation of "blow-in" door.	623, 624		N/A
21-70	Inspect deice pressure transducer for cracks, condition and security.	603, 604		N/A
36-00	Inspect deice line check valves for condition and security.	625, 626		N/A
36-00	Inspect all ducts, high temp tubing, couplings and clamps for condition and security. Inspect electrical wiring for evidence of chafing and/or arcing at hydraulic lines, bleed air tube and engine control cables.	603, 604, 615, 616, 619, 620, 623-626		N/A

FORM 609 - HEAVY WING/CENTER SECTION INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
24-00	Inspect the battery box for condition and security of battery and battery relay. Inspect hydraulic lines for condition and security. Inspect emergency gear release cable, bellcrank and attaching hardware for condition and security.	692, 693		N/A
24-00	Inspect all wiring for evidence of overheating, condition and security.	603, 604, 615, 616, 619, 620, 623-626		N/A
32-30	Inspect landing gear uplock release cable, bellcrank, and attaching hardware for chafing, condition and security.	619, 620, 625, 626		N/A
36-00	Inspect pneumatic system filter/dryer. (Replace dryer when blue crystals turn pink.)	696		N/A
36-00	Inspect pneumatic system filter drain for obstructions.	612		N/A
28-10	Inspect defuel port for evidence of leaks, condition and security.	608		N/A
28-10	Inspect cross flow tube, couplings and valve for condition and security.	607, 608		N/A
28-10	Inspect cross flow valve for operation and annunciation.	N/A		N/A
37-10	Inspect air ejector and plumbing for condition and security.	603		N/A
36-00	Inspect deice distribution valve for condition and security.	601		N/A
36-00	Inspect 18 psi pressure regulator and plumbing for condition and security.	603		N/A
36-00	Inspect 31 psi pressure regulator and plumbing for condition and security.	604		N/A
29-00	Inspect hydraulic plumbing for evidence of leakage, condition, and security.	N/A		N/A
26-10	Inspect wing over heat detector and wiring for condition and security.	611, 612		N/A
28-20	Inspect fuel vent interconnect.	691		N/A
24-40	Inspect GPU terminals for proper clearance, condition and security.	691		N/A
24-40	Inspect GPU indicating system.	691		N/A
52-30	Install right water separator sock.	620		N/A
21-70	Install left water separator sock.	619		N/A
27-50	Install flap interconnect center bolt and bearing.	611, 612		
57-30	Install wing center section inspection panels.	603-612, 615, 616, 619, 620, 623-626, 692, 693		N/A
57-10	Install lower wing extension panels.	679, 680		N/A

FORM 610 - LIGHT CARGO AREA/DOOR INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	R/I or CC
52-30	Remove cargo door liner.	707		N/A
25-40	Remove aft non-structural bulkhead.	751		N/A
52-30	Clean and lubricate latching mechanisms.	707		N/A
52-30	Check door for proper operation and fit.	707		N/A
52-30	Inspect cargo door and hinge for condition and security.	707		N/A
53-30	Check latching mechanism for gouges, excessive wear, condition, and security of jaws in extended position.	707		N/A
53-00	Inspect receptacles and faceplates for nicks, gouges, cracks, or evidence of damage.	707		N/A
52-00	Check door seal for deterioration, cuts, voids, condition, and security.	707		N/A
53-20	Check flooring and tie down rings for condition and security.	701-704, 752, 753		N/A
35-00	Check oxygen cylinder for condition, service, and security.	751		N/A
35-00	Check oxygen regulator and shutoff valve for condition and security.	751		N/A
35-00	Inspect oxygen lines, fittings, and filler valve for evidence of leakage, chafing, and condition.	751		N/A
35-00	Check condition of oxygen blow out disk.	751		N/A
31-30	Check FDR for security and condition.	751		N/A
23-70	Check CVR for security and condition.	751		N/A
53-10	Check aft access bulkhead for condition and security.	751		N/A
52-30	Install cargo door liner.	707		N/A
25-00	Install aft non-structural bulkhead.	751		N/A

FORM 611 - HEAVY CARGO AREA/DOOR INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
52-30	Remove cargo door liner.	707		N/A
53-10	Remove forward cargo bulkhead.	750		N/A
53-10	Remove aft structural bulkhead.	751		N/A
53-20	Remove cargo compartment floorboards.	701-704, 752, 753		N/A
52-30	Clean and lubricate latching mechanisms.	707		N/A
52-30	Inspect cargo door hinge for condition and security.	N/A		N/A
52-30	Inspect door seal for deterioration, cuts, proper contact between seal and air-frame when inflated, condition, and security.	N/A		N/A
52-30	Inspect door seal supply line at door-to-airframe for cracks, kinks, and breaks.	N/A		N/A
52-30	Inspect door structure for cracks, loose fasteners, and general condition.	N/A		N/A
52-00	Inspect door gas spring actuators for evidence of leaks, operation, security, and condition.	N/A		N/A
52-30	Inspect plastic latch inspection covers for condition.	N/A		N/A
52-10	Inspect Teflon guide blocks for condition and security.	N/A		N/A
52-30	Inspect internal door latching mechanism, linkages for loose rod ends, loose jam nuts, frozen rod ends, and bent or corroded links.	707		N/A
52-10	Inspect door seal valve and actuating mechanism for proper engagement, operation, and security.	707		N/A
52-30	Inspect alignment pins for proper operation. Inspect for wear at alignment pin bellcrank.	707		N/A
52-30	Inspect latching mechanisms for gouges, excessive wear, and security of jaws in the extended position.	N/A		N/A
52-00	Inspect receptacles and face plates for nicks, gouges, cracks, or evidence of damage.	N/A		N/A
52-30	Close door and check for fit.	N/A		N/A
51-00	Inspect structure and skin under floorboards for corrosion.	701-704, 752, 753		N/A
53-10	Inspect all stringers, frames, and skin for damage, cracks, and corrosion.	N/A		N/A
21-30	Inspect pressurization lines, fittings, and pneumatic relay for condition and security.	751		N/A
34-10	Inspect static port lines and fittings for condition and security.	751		N/A

FORM 611 - HEAVY CARGO AREA/DOOR INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
23-10	Inspect antenna leads, attachments, and connectors for condition and security.	751		N/A
24-00	Inspect electrical wiring for evidence of chafing, condition, and security.	N/A		N/A
27-20	Inspect all exposed cables, pulleys, fairleads, brackets, and structure for damage and condition.	751		N/A
24-20	Inspect inverters for mounting, condition, and security.	751		N/A
25-60	Inspect ELT for evidence of corrosion, condition, and security-check battery replace due date.	751		N/A
77-10	Inspect EGT compensator (Post S/B 227- 77-001), torque signal conditioners, SRL computers, temp limiters, and interface assembly on aft equipment rack for condition and security.	751		N/A
23-70	Check CVR for condition and security.	751		N/A
31-30	Check FDR for condition and security.	751		N/A
77-10	Inspect aft equipment rack for structural integrity.	751		N/A
35-00	Inspect oxygen cylinder for condition and security.	751		N/A
35-00	Inspect regulator and shutoff valve for condition and security.	751		N/A
35-00	Inspect lines, fittings, and filler valve for evidence of leakage, chafing, and general condition.	705, 751		N/A
35-00	Inspect oxygen blow-out disk.	N/A		N/A
53-00	Inspect cargo net for condition, deterioration, damage and fraying. Inspect fittings for damage and visible cracks.	N/A		N/A
53-00	Inspect condition of insulation blankets.	705, 706, 708, 710, 712		N/A
52-30	Install cargo door liner.	707		N/A
53-10	Install forward cargo bulkhead.	750-751		N/A
53-20	Install cargo compartment floorboards.	701, 704, 752, 753		N/A
53-10	Install aft structural bulkhead.	751		N/A

FORM 612 - LIGHT EMPENNAGE INSPECTION

1 of 1

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	OPERATION	PANEL	MECHANIC	RII or CC
27-40	Remove access panels and lubricate horizontal stabilizer.	817, 818		N/A
55-20	Inspect elevator hinge bolts and bushings for security and condition.	N/A		N/A
55-10	Inspect horizontal stabilizer, outer skins and visible area of spar for buckling, cracks, corrosion, working fasteners, and general condition.	N/A		N/A
55-10	Inspect horizontal trim range markings.	N/A		N/A
30-10	Inspect condition of deice boots.	N/A		N/A
55-10	Inspect leading edge of left and right horizontal stabilizers by feeling to detect possible impact damage that may be hidden by deice boots.	N/A		N/A
55-40	Inspect rudder for condition at hinge points.	N/A		N/A
55-40	Inspect rudder trim tab for condition.	N/A		N/A
55-40	Inspect rudder trim tab rod and bearings for corrosion, scratches, gouges, security, and condition.	N/A		N/A
55-40	Inspect rudder trim tab rod for freedom of operation.	N/A		N/A
55-40	Inspect rudder trim tab bearings for freedom of operation.	N/A		N/A
55-30	Inspect vertical stabilizer, outer skins, and visible area of spar for buckling, cracks, corrosion, working fasteners, and general condition.	N/A		N/A
55-30	Inspect leading edge of vertical stabilizer for impact damage.	N/A		N/A
23-20	Inspect antennas for condition and security.	N/A		N/A
27-30	Inspect static wicks for condition and security.	N/A		N/A
27-40	Install horizontal stabilizer access panels.	N/A		N/A

FORM 613 - HEAVY EMPENNAGE INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	Rll or CC
51-00	Remove access panels, fairings and dorsal fin on horizontal and vertical stabilizers.	801-808, 810-822, 850, 851		N/A
27-40	Lubricate horizontal stabilizer Trunnion bolt.	817, 818		N/A
21-30	Remove tailcone and pressure bulkhead.	852, 853		N/A
21-30	Clean outflow valve.	N/A		N/A
21-30	Check condition of outflow valve and filter.	N/A		N/A
27-40	Inspect leading edge of horizontal stabilizer for possible impact damage hidden by deice boot.	N/A		N/A
30-10	Inspect deicer boots and leading edges for general condition.	N/A		N/A
27-40	Inspect pitch trim actuator, limit switches, and position transmitter for condition and security.	801, 802, 805		N/A
27-40	Inspect pitch trim actuator upper and lower attach fittings for corrosion, security and condition.	N/A		N/A
27-40	Cycle pitch trim actuator through full limits and check limit switches and warning horns for operation.	N/A		N/A
27-40	Inspect horizontal stabilizer trunnion bolt for wear, condition, and security.	817, 818		N/A
27-40	Inspect horizontal stabilizer for cracks, loose fasteners, corrosion, buckling, and general condition.	N/A		N/A
27-30	Inspect elevator cables, pulleys, fairleads, pressure seals, stops, bolts, and bearings for wear and condition.	N/A		N/A
27-30	Inspect elevator quadrant for condition and security.	803, 808, 850		N/A
27-30	Inspect elevator torque tubes and actuating rods for condition and security.	803, 808		N/A
27-30	Inspect elevator hinges and hinge brackets for corrosion, condition, and security.	819, 820		N/A
55-20	Inspect elevator for structural integrity.	N/A		N/A
55-20	Inspect elevator counter balance for security.	N/A		N/A
27-70	Inspect elevator gust lock assembly for condition (if applicable).	N/A		N/A
27-30	Inspect elevator for freedom of movement and freedom of travel from stop to stop.	808		N/A
27-30	Check elevator free play.	N/A		N/A
55-30	Inspect vertical stabilizer for cracks, loose fasteners, corrosion, buckling, and general condition.	808		N/A
55-10	Inspect vertical stabilizer visible segments of ribs, stringers, and spars for cracks, loose fasteners, buckling, corrosion, and security of attaching brackets and hinges.	N/A		N/A

FORM 613 - HEAVY EMPENNAGE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
30-10	Inspect vertical stabilizer leading edge erosion boot for condition and security.	N/A		N/A
55-40	Inspect rudder for structural integrity.	N/A		N/A
55-50	Inspect rudder counter balance for security.	N/A		N/A
27-20	Inspect rudder for freedom of movement and free play.	N/A		N/A
27-20	Inspect rudder trim tab for free play.	N/A		N/A
27-20	Inspect rudder trim tab, actuator, chain, cables, rod ends, hinge, and hinge brackets for operation and security.	807		N/A
27-20	Inspect rod assembly for correct installation. Ensure actuator clevis bolt is installed per maintenance manual.	N/A		N/A
27-20	Inspect rod and rod bearings for any signs of damage such as scratches, gouges, deformation, corrosion, etc.	N/A		N/A
27-20	Inspect rudder torque tube for condition and security.	853		N/A
27-20	Inspect rudder bellcrank assembly for condition and security.	853		N/A
27-70	Inspect rudder control lock assembly for operation and security.	853		N/A
27-20	Inspect rudder cables and pulleys for condition and security.	853		N/A
27-00	Inspect static wicks for bonding, condition, and security.	N/A		N/A
33-40	Inspect logo lights for operation, condition, and security. (If installed)	N/A		N/A
33-04	Inspect nav, strobe, and rotating beacon light and lenses for operation, condition, and security and lenses for cracking, crazing and erosion damage.	N/A		N/A
33-40	Inspect tail strobe light power supply for condition and security and lense for cracking, crazing, and erosion damage.	N/A		N/A
N/A	Inspect ventral fin for damage, loose, or missing rivets, and general condition.	N/A		N/A
34-10	Inspect static ports for cleanliness and stenciling.	N/A		N/A
27-30	Inspect dorsal fin mounting brackets and bulkhead for condition and security.	853		N/A
51-00	Install all removed inspection panels, fairing, etc., and inspect for fit and security.	801-808, 810-822, 850, 851		N/A
21-30	Install pressure bulkhead and tailcone.	852, 853		N/A

FORM 614 - LIGHT ENGINE INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

Inspect LH Engine as follows:				
71-00	Open engine cowl.	952, 954, 956		N/A
N/A	Take hot engine oil sample.	954, 956		N/A
71-00	Check engine and propeller areas for evidence of fuel or oil leaks and identify source.	952, 954, 956		N/A
71-00	Complete inspection items (a) through (f) IAW Honeywell Publications.			
(a)	Replace fuel control filter.	954, 956		
(b)	Replace engine oil filter element.	954, 956		N/A
(c)	Inspect gearbox drain.	956		N/A
(d)	Inspect temperature compensator (Pre S/B 227-77-001).	954		N/A
(e)	Inspect first stage compressor impeller.	N/A		N/A
(f)	Operate airframe emergency feather/fuel shut off system to determine if feathering valve and fuel shut off have actuated.	N/A		N/A
79-20	Check oil bypass indicator pin.	956		N/A
71-00	Check condition of engine cowl and latches.	954, 956		N/A
Inspection Items 1 thru 10 do not apply if P/N 27-62080-047 Inconel exhaust duct is installed				
1	Remove primary bleed air tube from upper half of heat exchanger.	964		N/A
2	Install protective cover on open ends of bleed air tube.	N/A		N/A
3	Remove upper aspirator cover.	966		N/A
4	Remove small aspirator access panel.	965		N/A
5	Inspect aspirator covers for cracks, condition of latches, distortion, and general condition.	965, 966		N/A
6	Inspect aspirator assembly for cracks, distortion, and general condition.	965		N/A
7	Inspect heat exchanger cooling fins for chaffing, distortion, cracks, and general condition.	N/A		N/A
8	Install lower aspirator cover.	965		N/A
9	Install upper aspirator cover.	966		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
10	Install primary bleed air tube.	964		N/A
71-00	Close engine cowl.	952, 954, 956		N/A

FORM 614 - LIGHT ENGINE INSPECTION

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Inspect RH Engine as follows:				
71-00	Open engine cowling.	952, 954, 956		N/A
N/A	Take hot engine oil sample.	954, 956		N/A
71-00	Check engine and propeller areas for evidence of fuel or oil leaks and identify source.	952, 954, 956		N/A
71-00	Complete inspection items (a) through (f) IAW Honeywell Publications.			
(a)	Replace fuel control filter.	954, 956		
(b)	Replace engine oil filter element.	954, 956		N/A
(c)	Inspect gearbox drain.	956		N/A
(d)	Inspect temperature compensator (Pre S/B 227-77-001).	954		N/A
(e)	Inspect first stage compressor impeller.	N/A		N/A
(f)	Operate airframe emergency feather/fuel shut off system to determine if feathering valve and fuel shut off have actuated.	N/A		N/A
79-20	Check oil bypass indicator pin.	956		N/A
71-00	Check condition of engine cowling and latches.	954, 956		N/A
Inspection Items 1 thru 10 do not apply if P/N 27-62080-047 Inconel exhaust duct is installed				
1	Remove primary bleed air tube from upper half of heat exchanger.	964		N/A
2	Install protective cover on open ends of bleed air tube.	N/A		N/A
3	Remove upper aspirator cover.	966		N/A
4	Remove small aspirator access panel.	965		N/A
5	Inspect aspirator covers for cracks, condition of latches, distortion, and general condition.	965, 966		N/A
6	Inspect aspirator assembly for cracks, distortion, and general condition.	965		N/A
7	Inspect heat exchanger cooling fins for chaffing, distortion, cracks, and general condition.	N/A		N/A
8	Install lower aspirator cover.	965		N/A
9	Install upper aspirator cover.	966		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
10	Install primary bleed air tube.	964		N/A
71-00	Close engine cowling.	952, 954, 956		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect LH Engine as follows:				
N/A	Open engine cowling and remove the following panels: 905, 913, 953, 959, and 961.	955, 957		N/A
N/A	Take hot engine oil sample.	955, 957		N/A
71-00	Check engine and propeller areas for evidence of fuel or oil leaks and identify source.	955, 957		N/A
N/A	Remove Starter Generator.	N/A		N/A
71-00	Complete inspection items (a) through (k) IAW Honeywell Publications.			
(a)	Remove, clean and inspect fuel pump filter.	955		
(b)	Replace engine oil filter element.	955, 957		N/A
(c)	Inspect input gearbox drain.	957		N/A
(d)	Remove and inspect magnetic drain plug (chip detector).	953		N/A
(e)	Remove, clean, and inspect igniter plugs.	955, 957		N/A
(f)	Remove, clean, and inspect fuel manifold purge system filter.	955		
(g)	Remove, clean, and inspect fuel bypass valve filter	955, 957		
(h)	Remove, clean, and inspect flow divider filter.	957		
(i)	Inspect control linkages.	955, 957		N/A
(j)	Inspect plumbing lines and connections.	955, 957		N/A
(k)	Inspect electrical wiring and connections.	955, 957		N/A
71-00	Clean engine.	955, 957		N/A
71-00	Inspect engine cowling for loose or working fasteners, skin cracks, and condition of seals.	955, 957		N/A
71-00	Inspect engine cowling inner surface of skins, formers and flanges for condition and corrosion.	955, 957		N/A
71-00	Inspect engine cowling fittings, hinge brackets, latches, and attaching hardware for evidence of cracks, failure of welds or brazing, and general condition.	955, 957		N/A
71-00	Inspect engine cowling gas spring actuators, support cables, and attaching hardware for security and condition.	955, 957		N/A
71-00	Inspect engine oil, hydraulic, and fuel lines (hoses and/or tubes) for deterioration, cuts, chafing, cracks, routing, leakage, general condition, and security.	955, 957		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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79-10	Inspect oil tank assembly, lines and connectors for leaks, condition, and security.	N/A		N/A
79-10	Inspect oil filter bypass indicator pin.	955, 957		N/A
79-20	Inspect oil cooler for foreign object damage, evidence of leakage, security, and general condition.	957		N/A
79-30	Inspect oil pressure transducer and low oil pressure switch for evidence of leakage, condition, and security.	955, 957, 959		N/A
54-10	Inspect upper engine attach fittings aft of firewall for evidence of loose bolts, fretting, condition, and security.	959		N/A
74-30	Inspect ignition leads and exciter box for condition and security.	955, 957		N/A
71-30	Inspect igniter plug heat shields, hoses, and clamps for condition and security.	955, 957		N/A
72-00	Inspect air intake and first stage compressor blades for foreign object damage, obstructions, erosion, and evidence of corrosion.	N/A		N/A
82-20	Inspect CAWI manifold (in engine inlet) for evidence of damage, obstructions, and security.	N/A		N/A
73-20	Inspect P2/T2 and TT2 sensor in engine inlet.	957		N/A
75-10	Inspect anti-ice shield for cracks, distortion, damage, security, and condition.	955		N/A
30-20	Inspect engine inlet anti-icing valve for evidence of leakage, dents, cracks, security, and condition.	955, 957		N/A
72-00	Inspect all engine components and external surfaces for cracks and general condition.	955, 957		N/A
N/A	Inspect beta switch, beta block, check valve, beta plumbing, and wiring for security and condition.	955, 957		N/A
73-22	Inspect fuel bypass valve for leaks, condition, and security.	955, 957		N/A
73-30	Inspect fuel flow transmitter for evidence of leaks, condition, and security.	955, 957, 959		N/A
73-10	Inspect EPA kit check valves, accumulator, and solenoid valve for condition and security.	955		N/A
28-20	Inspect fuel shutoff valve and plumbing for condition and security. Check fuel hose from fuel shutoff valve to firewall for leaks per SA 227 MM 28-20-20.	955, 957		N/A
73-10	Inspect primary fuel only valve and plumbing for condition and security.	955, 957		N/A
73-10	Inspect fuel flow divider valve and plumbing for condition and security.	955		N/A
73-10	Inspect fuel heater for condition, evidence of leakage, and security.	955, 957, 959		N/A
73-30	Inspect fuel pressure transducer for condition, evidence of leakage, and security.	957		N/A
73-21	Inspect start pressure regulator assembly for cracks, condition, evidence of leakage, and security.	959		N/A
82-00	Inspect CAWI shutoff valve, plumbing, and electrical harness for condition and security.	959		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
82-00	Inspect CAWI shutoff valve for evidence of leakage.	957		N/A
29-10	Inspect engine driven hydraulic pumps for condition, leakage, and security.	955, 957		N/A
71-20	Check engine truss assembly attaching bolts for proper torque IAW the AMM.	955, 957		
71-20	Inspect upper and lower truss assemblies for cracks, deformation, chafing, dents, and condition of welds.	955, 957		N/A
71-20	Check engine vibration isolator assemblies for proper torque IAW the AMM.	955, 957		
71-20	Inspect engine vibration isolator mount assemblies for condition, deflection, and security.	955, 957		N/A
21-10	Inspect engine primary bleed air tube for evidence of leaks, cracks, distortion, chafing, general condition, and security.	955, 957		N/A
77-10	Inspect tach generator for condition, connections, and security.	955, 957		N/A
72-10	Inspect propeller governor and propeller pitch controls for condition, evidence of leakage, and security.	957		N/A
61-20	Inspect electrical quick disconnects at propeller governor for condition and security.	955, 957		N/A
61-20	Inspect propeller unfeathering pump for condition, evidence of leakage, and security.	955, 957		N/A
72-20	Inspect feathering valve for evidence of leakage, condition, and security.	957		N/A
77-20	Inspect engine thermocouple harness assembly and connections for condition and security.	955, 957		N/A
77-20	Inspect EGT compensator (if installed on engine) for condition and security.	955, 957		N/A
26-10	Inspect engine fire detectors for condition and security.	955, 957		N/A
26-20	Inspect fire extinguisher bottle for charge, condition, and security.	913		N/A
76-20	Inspect fuel shutoff control cables for travel, freedom of movement, and security.	957		N/A
76-20	Check fuel shutoff control cables for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boots.	955, 957		N/A
76-10	Inspect power control cable for travel, freedom of movement, and security.	955, 957		N/A
76-10	Check power control cable for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boot.	955, 957		N/A
76-10	Inspect RPM control cable for travel, freedom of movement, and security.	955, 957		N/A
76-10	Check RPM control cable for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boots.	955, 957		N/A
76-00	Inspect engine control rigging.	955, 957		N/A
72-00	Inspect engine drains and drain lines for condition, evidence of obstruction, and security.	955, 957		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
24-00	Inspect engine wire harness, leads, and connectors for chafing, corrosion, clamping, cracks, insulation, and evidence of overheating, proper routing, and security.	957		N/A
71-00	Inspect starter generator intake duct, tubing, and springs for condition and security.	955, 957		N/A
21-10	Inspect aspirator and seal assembly for cracks, evidence of leakage, deterioration of seal, loose fasteners, and security.	955, 957		N/A
54-40	Inspect firewall for buckling, cracks, and general condition.	957		N/A
Inspection Items 1 thru 10 do not apply if P/N 27-62080-047 inconel Exhaust duct is installed				
1	Remove primary bleed air tube from upper half of heat exchanger.	964		N/A
2	Install protective cover on open ends of bleed air tube.	N/A		N/A
3	Remove upper aspirator cover	966		N/A
4	Remove lower aspirator access panel.	965		N/A
5	Inspect aspirator covers for cracks, condition of latches, distortion, and general condition.	965, 966		N/A
6	Inspect aspirator assembly for cracks, distortion, and general condition.	N/A		N/A
7	Inspect heat exchanger cooling fins for chaffing, distortion, cracks, and general condition.	N/A		N/A
8	Install lower aspirator cover.	965		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
9	Install upper aspirator cover.	966		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
10	Install primary bleed air tube.	964		N/A
12-10	Check for proper service of engine oil and fluid levels.	955, 957		N/A
72-10	Check NTS valves for condition and security.	955, 957		N/A
N/A	Install Starter Generator.	N/A		N/A
71-00	Inspect opened compartments, bays and access areas prior to closing. Verify all areas are clear of foreign objects.	955, 957		N/A
71-00	Install panels 905, 913, 953, 959, and 961.	N/A		N/A
71-10	Close engine cowlings.	955, 957		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect RH Engine as follows:				
N/A	Open engine cowl and remove the following panels: 905, 913, 953, 959, and 961.	954, 956		N/A
N/A	Take hot engine oil sample.	954, 956		N/A
71-00	Check engine and propeller areas for evidence of fuel or oil leaks and identify source.	954, 956		N/A
N/A	Remove Starter Generator.	N/A		N/A
71-00	Complete inspection items (a) through (k) IAW Honeywell Publications.			
(a)	Remove, clean and inspect fuel pump filter.	954		
(b)	Replace engine oil filter element.	954, 956		N/A
(c)	Inspect input gearbox drain.	956		N/A
(d)	Remove and inspect magnetic drain plug (chip detector).	952		N/A
(e)	Remove, clean, and inspect igniter plugs.	954, 956		N/A
(f)	Remove, clean, and inspect fuel manifold purge system filter.	954		
(g)	Remove, clean, and inspect fuel bypass valve filter	954, 956		
(h)	Remove, clean, and inspect flow divider filter.	956		
(i)	Inspect control linkages.	954, 956		N/A
(j)	Inspect plumbing lines and connections.	954, 956		N/A
(k)	Inspect electrical wiring and connections.	954, 956		N/A
71-00	Clean engine.	954, 956		N/A
71-00	Inspect engine cowl for loose or working fasteners, skin cracks, and condition of seals.	954, 956		N/A
71-00	Inspect engine cowl inner surface of skins, formers and flanges for condition and corrosion.	954, 956		N/A
71-00	Inspect engine cowl fittings, hinge brackets, latches, and attaching hardware for evidence of cracks, failure of welds or brazing, and general condition.	954, 956		N/A
71-00	Inspect engine cowl gas spring actuators, support cables, and attaching hardware for security and condition.	954, 956		N/A
71-00	Inspect engine oil, hydraulic, and fuel lines (hoses and/or tubes) for deterioration, cuts, chafing, cracks, routing, leakage, general condition, and security.	954, 956		N/A
79-10	Inspect oil tank assembly, lines and connectors for leaks, condition, and security.	N/A		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
79-20	Inspect oil cooler for foreign object damage, evidence of leakage, security, and general condition.	956		N/A
79-30	Inspect oil pressure transducer and low oil pressure switch for evidence of leakage, condition, and security.	954, 956, 958		N/A
54-10	Inspect upper engine attach fittings aft of firewall for evidence of loose bolts, fretting, condition, and security.	958		N/A
74-30	Inspect ignition leads and exciter box for condition and security.	954, 956		N/A
71-30	Inspect igniter plug heat shields, hoses, and clamps for condition and security.	954, 956		N/A
72-00	Inspect air intake and first stage compressor blades for foreign object damage, obstructions, erosion, and evidence of corrosion.	N/A		N/A
82-20	Inspect CAWI manifold (in engine inlet) for evidence of damage, obstructions, and security.	N/A		N/A
73-20	Inspect P2/T2 and TT2 sensor in engine inlet.	956		N/A
75-10	Inspect anti-ice shield for cracks, distortion, damage, security, and condition.	954		N/A
30-20	Inspect engine inlet anti-icing valve for evidence of leakage, dents, cracks, security, and condition.	954, 956		N/A
72-00	Inspect all engine components and external surfaces for cracks and general condition.	954, 956		N/A
N/A	Inspect beta switch, beta block, check valve, beta plumbing, and wiring for security and condition.	954, 956		N/A
73-22	Inspect fuel bypass valve for leaks, condition, and security.	954, 956		N/A
73-10	Inspect fuel differential pressure switch for evidence of leaks, condition, and security.	954, 956		N/A
73-10	Inspect EPA kit check valves, accumulator, and solenoid valve for condition and security.	954		N/A
28-20	Inspect fuel shutoff valve and plumbing for condition and security. Check fuel hose from fuel shutoff valve to firewall for leaks per SA227 MM 28-20-20.	954, 956		N/A
73-10	Inspect primary fuel only valve and plumbing for condition and security.	954, 956		N/A
73-10	Inspect fuel flow divider valve and plumbing for condition and security.	956		N/A
73-10	Inspect fuel heater for condition, evidence of leakage, and security.	954		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
73-30	Inspect fuel pressure transducer for condition, evidence of leakage, and security.	954, 956, 958		N/A
73-21	Inspect start pressure regulator assembly for cracks, condition, evidence of leakage, and security.	956		N/A
82-00	Inspect CAWI shutoff valve, plumbing, and electrical harness for condition and security.	958		N/A
82-00	Inspect CAWI shutoff valve for evidence of leakage.	958		N/A
29-10	Inspect engine driven hydraulic pumps for condition, leakage, and security.	956		N/A
71-20	Check engine truss assembly attaching bolts for proper torque IAW the AMM.	954, 956		
71-20	Inspect upper and lower truss assemblies for cracks, deformation, chafing, dents, and condition of welds.	954, 956		N/A
71-20	Check engine vibration isolator assemblies for proper torque IAW the AMM.	954, 956		
71-20	Inspect engine vibration isolator mount assemblies for condition, deflection, and security.	954, 956		N/A
21-10	Inspect engine primary bleed air tube for evidence of leaks, cracks, distortion, chafing, general condition, and security.	954, 956		N/A
77-10	Inspect tach generator for condition, connections, and security.	954, 956		N/A
72-10	Inspect propeller governor and propeller pitch controls for condition, evidence of leakage, and security.	954		N/A
61-20	Inspect electrical quick disconnects at propeller governor for condition and security.	954, 956		N/A
61-20	Inspect propeller unfeathering pump for condition, evidence of leakage, and security.	954, 956		N/A
72-20	Inspect feathering valve for evidence of leakage, condition, and security.	956		N/A
77-20	Inspect engine thermocouple harness assembly and connections for condition and security.	954, 956		N/A
77-20	Inspect EGT compensator (if installed on engine) for condition and security.	954, 956		N/A
26-10	Inspect engine fire detectors for condition and security.	954, 956		N/A
26-20	Inspect fire extinguisher bottle for charge, condition, and security.	912		N/A
76-20	Inspect fuel shutoff control cables for travel, freedom of movement, and security.	956		N/A
76-20	Check fuel shutoff control cables for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boots.	954, 956		N/A
76-10	Inspect power control cable for travel, freedom of movement, and security.	954, 956		N/A
76-10	Check power control cable for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boot.	954, 956		N/A
76-10	Inspect RPM control cable for travel, freedom of movement, and security.	954, 956		N/A

FORM 615 - HEAVY ENGINE INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
76-10	Check RPM control cable for missing or broken safety wire, cotter pins, loose "jam" nuts, frozen rod end bearings, and condition of moisture boots.	954, 956		N/A
76-00	Inspect engine control rigging.	954, 956		N/A
72-00	Inspect engine drains and drain lines for condition, evidence of obstruction, and security.	954, 956		N/A
24-00	Inspect engine wire harness, leads, and connectors for chafing, corrosion, clamping, cracks, insulation, evidence of overheating, proper routing, and security.	954, 956		N/A
71-00	Inspect starter generator intake duct, tubing, and springs for condition and security.	954, 956		N/A
21-10	Inspect aspirator and seal assembly for cracks, evidence of leakage, deterioration of seal, loose fasteners, and security.	954, 956		N/A
54-40	Inspect firewall for buckling, cracks, and general condition.	956		N/A
Inspection Items 1 thru 10 do not apply if P/N 27-62080-047 Inconel exhaust duct is installed				
1	Remove primary bleed air tube from upper half of heat exchanger.	954		N/A
2	Install protective cover on open ends of bleed air tube.	N/A		N/A
3	Remove upper aspirator cover	966		N/A
4	Remove lower aspirator access panel.	965		N/A
5	Inspect aspirator covers for cracks, condition of latches, distortion, and general condition.	965, 966		N/A
6	Inspect aspirator assembly for cracks, distortion, and general condition.	N/A		N/A
7	Inspect heat exchanger cooling fins for chaffing, distortion, cracks, and general condition.	N/A		N/A
8	Install lower aspirator cover.	965		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
9	Install upper aspirator cover.	966		N/A
NOTE: APPLY C5A ANTI-SIEZE COMPOUND TO THREADS OF ACCESS PANEL RETAINING SCREWS.				
10	Install primary bleed air tube.	964		N/A
12-10	Check for proper service of engine oil and fluid levels.	954, 956		N/A
72-10	Check NTS valves for condition and security.	954, 956		N/A
N/A	Install Starter Generator.	N/A		N/A
71-00	Inspect opened compartments, bays and access areas prior to closing. Verify all areas are clear of foreign objects.	954, 956		N/A
71-00	Install panels 904, 912, 952, 958, and 960.	N/A		N/A
71-10	Close engine cowlings.	954, 956		N/A

FORM 616 - LIGHT PROPELLER INSPECTION

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DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
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ATA	DESCRIPTION	PANEL	MECHANIC	Rll or CC
Inspect LH Propeller as follows:				
61-10	Remove propeller spinner and lower cowling access panel.	953, 1051		N/A
61-10	Inspect prop spinner and bulkheads for cracks, dents, distortion, condition and security.	1051		N/A
30-60	Inspect deice boots, wiring and connections for condition and security.	953, 1051		N/A
61-10	Inspect blades for nicks, cracks, scratching, pitting, corrosion, and security. Dress or repair as required IAW manufacturers' guidelines.	N/A		N/A
61-10	Inspect blades for looseness.	N/A		N/A
61-10	Rotate props to check for any evidence of dragging.	N/A		N/A
61-00	Inspect propeller hubs for evidence of leakage, condition and security.	1051		N/A
61-00	Install propeller spinner and lower cowling access panel.	953, 1051		N/A
Inspect RH Propeller as follows:				
61-10	Remove propeller spinner and lower cowling access panel.	952, 1052		N/A
61-10	Inspect prop spinner and bulkheads for cracks, dents, distortion, condition and security.	1052		N/A
30-60	Inspect deice boots, wiring and connections for condition and security.	952, 1052		N/A
61-10	Inspect blades for nicks, cracks, scratching, pitting, corrosion, and security. Dress or repair as required IAW manufacturers' guidelines.	N/A		N/A
61-10	Inspect blades for looseness.	N/A		N/A
61-10	Rotate props to check for any evidence of dragging.	N/A		N/A
61-00	Inspect propeller hubs for evidence of leakage, condition and security.	1052		N/A
61-00	Install propeller spinner and lower cowling access panel.	952, 1052		N/A

FORM 617 - HEAVY PROPELLER INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect LH Propeller as follows:				
61-10	Remove propeller spinner and lower cowling access panel.	953, 1051		N/A
30-60	Inspect nutplates on prop bulkhead for condition and security.	1051		N/A
61-10	Inspect prop spinners and bulkheads for cracks, dents, distortion, condition and security.	1051		N/A
61-10	Inspect the propeller hub for evidence of leakage, condition and security.	1051		N/A
61-10	Inspect start locks for condition and security on aircraft with Dowty Rotol and MT Propellers.	1051		N/A
61-10	Inspect prop retention bolts or nuts and safety wire for condition and security.	953		N/A
61-10	Inspect propeller deice slip rings for condition. On MT replace if worn 1mm below support.	953		N/A
61-10	Inspect brush block for correct adjustment, condition and security.	953		N/A
61-10	Inspect brushes for wear.	953		N/A
61-10	Inspect propeller synchrophaser pick up and target for correct adjustment, condition and security.	953		N/A
61-10	Inspect blades for nicks, cracks, scratching, pitting corrosion, and security. Dress or repair blades as required IAW manufacturers' guidelines.	N/A		N/A
61-10	Inspect blades for looseness. On MT Check Blade Tip play (Max 1/8", angular play max 2°).	1051		N/A
61-10	Inspect prop deice boots, terminal strips, wiring and connections for condition and security.	953, 1051		N/A
61-10	Install propeller spinner and lower cowling access panel.	953, 1051		N/A

FORM 617 - HEAVY PROPELLER INSPECTION

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ATA	DESCRIPTION	PANEL	MECHANIC	RII or CC
Inspect RH Propeller as follows:				
61-10	Remove propeller spinner and lower cowling access panel.	952, 1052		N/A
61-10	Inspect prop spinners and bulkheads for cracks, dents, distortion, condition and security.	1052		N/A
61-10	Inspect the propeller hub for evidence of leakage, condition and security.	1052		N/A
61-10	Inspect start locks for condition and security on aircraft with Dowty Rotol and MT Propellers.	1052		N/A
61-10	Inspect prop retention bolts or nuts and safety wire for condition and security.	952		N/A
61-10	Inspect propeller deice slip rings for condition. On MT replace if worn 1mm below support.	952		N/A
61-10	Inspect brush block for correct adjustment, condition and security.	952		N/A
61-10	Inspect brushes for wear.	952		N/A
61-10	Inspect propeller synchrophaser pick up and target for correct adjustment, condition and security.	952		N/A
61-10	Inspect blades for nicks, cracks, scratching, pitting corrosion, and security. Dress or repair blades as required IAW manufacturers' guidelines.	N/A		N/A
61-10	Inspect blades for looseness. On MT Check Blade Tip play (Max 1/8", angular play max 2°).	1052		N/A
61-10	Inspect prop deice boots, terminal strips, wiring and connections for condition and security.	952, 1052		N/A
61-10	Install propeller spinner and lower cowling access panel.	952, 1052		N/A

CH 5 Supplemental Inspection Program

CH 5.1 Introduction

The Supplemental Structural Inspection Program for Fairchild SA227 aircraft is available to extend the life of the aircraft to a maximum of 50,000 flight hours. These additional inspections and modification requirements are based on current aircraft usage, material and airframe tests, and damage tolerance analysis. A practical inspection program has been established for each Principal Structural Element (PSE).

- A PSE is a structural element whose failure, if it remains undetected, could lead to loss of the aircraft. Selection of a PSE is influenced by the susceptibility of a structural area, part, or element to fatigue, corrosion, stress corrosion, or accidental damage.

The inspection program consists of supplemental inspections as required for continued airworthiness of the aircraft as they age. The existing inspection program is considered adequate for detecting corrosion and accidental damage. The emphasis of the Supplemental Structural Inspection Program is to detect fatigue damage whose probability increases with time.

CH 5.2 General Requirements

Facilities performing nondestructive inspection as defined in this Supplemental Inspection Program must hold a Valid FAA Repair Station Certificate with a Specialized Service Rating in the applicable method of nondestructive inspection.

Facilities performing nondestructive inspection as defined in this SID must own or have access to test equipment capable of performing the inspection and reporting the test results as defined in this manual.

Personnel performing nondestructive inspection defined in this Supplemental Inspection Program shall be certified to a minimum of Level II in the applicable inspection method as defined by the American Society for Nondestructive Testing. Recommended Practice Number SNT-TC-1A.

Organizations and personnel engaged in the application of nondestructive inspection and operating under the jurisdiction of a foreign government shall use the appropriate documents issued by the applicable regulatory agency in complying with the above requirements.

Further information on nondestructive testing can be found in the SA226/SA227 Structural Repair Manual.

CH 5.3 Applicability

This program is valid for SA227 aircraft with less than 50,000 flight hours. Structural testing results during SID development determined the vertical crack growth was well in excess of 50,000 flight hours. Based on those results, the vertical tail requires no additional inspections or modifications to achieve 50,000 flight hours.

These inspections only apply to aircraft which have the life extension accomplished or aircraft that are candidates for the life extension. These tasks will be implemented at the discretion of the Chief Inspector.

CH 5.4 Objective

The objective of the Supplemental Structural Inspection Program is the detection of damage due to fatigue, overload, or corrosion, through the practical use of Non-Destructive Inspection (NDI) methods. The Supplemental Inspection Document (SID) addresses primary and secondary airframe components only. Powerplant, electrical items, and primary and secondary systems are not addressed by this document.

CH 5.5 List of Supplemental Inspections

Supplemental Inspections (SID)				
TASK NO	DESCRIPTION	EFFECTIVITY	THRESHOLD	RECURRENT
27-31-01	SA226/227 Control Column Roller Bearing Replacement	SA227 - All SA227CC/DC S/N's 784, 790-904	1000 FH	N/A
52-31-01	SA226/227 Cargo Door Hinge Replacement or Inspection	SA227 - All	37500 FC	1000 FC
55-10-01	SA226/227 Rib Strap at Horizontal Stabilizer Rear Spar at B.L. 3.1 Reinforcement	SA227 - Up to S/N 786	35000 FH	N/A
57-10-03	SA226/227 Wing Main Spar Lower Cap at STA 9 Inspection	SA227 - All SA227CC/DC S/N's 784, 790-904	14300 FH	10000 FH
57-10-05	SA226/227 Wing Main Spar Lower Cap at STA 99.	SA227 - All	20000 FH	5000 FH
57-10-06	SA226/227 Lower Wing Skin Splice at STA 27.	SA227 - Up to S/N 591	11800 FH	5500 FH
71-21-01	SA227 Engine Mount at Firewall	All with 27-62114 engine mount truss except S/N 892, 893 and 895 up	1000 FH	N/A

S.I.D. 27-31-01 SA226/SA227 Control Column Roller Bearing

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

SUPPLEMENTAL INSPECTION NUMBER: S.I.D.27-31-01 - SA226/SA227 Control Column Roller Bearing

INTERVAL: Initial – 1000 FH, Repeat – N/A

EFFECTIVITY: SA227 – All

ACCESS/LOCATION: Cockpit Floor

DETECTABLE CRACK SIZE: N/A

INSPECTION METHOD: N/A

PURPOSE: Replacement of control column roller bearing and support structure with fatigue-resistant design.

INSPECTION INSTRUCTIONS

1. Accomplish Fairchild Service Bulletin 227-27-042

MECHANIC'S SIGNATURE	CERTIFICATE NUMBER & TYPE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D. 52-31-01 SA226/SA227 Cargo Door Hinge

1 of 2

DATE	AIRCRAFT REG #	AIRCRAFT SN #	STATION
TAT	TAC	WORKORDER #	LOGBOOK PAGE #

SUPPLEMENTAL INSPECTION NUMBER: S.I.D. 52-31-01 - SA226/SA227 Cargo Door Hinge

INTERVAL: Initial – 37500 FC since new, Repeat – 1000 FC

EFFECTIVITY: SA227 – All

ACCESS/LOCATION: Fuselage at cargo door upper sill.

DETECTABLE CRACK SIZE: 0.10 INCH

INSPECTION METHOD: Surface Eddy Current.

PURPOSE: Inspection or replacement of cargo door hinge.

NOTE: Hinge may be replaced at 37,500 cycles or any time thereafter in lieu of inspection. See the parts catalog and maintenance manual for replacement information.

EQUIPMENT:

The following equipment is recommended to perform the inspection. Equivalent eddy current test equipment may be used provided that the equipment is capable of achieving the required frequency range and sensitivity:

100 to 500 KHz shielded absolute metal shaft probe, NORTEC stock no. 9213013.

NOTE: this probe requires a separate cable.

INSPECTION INSTRUCTIONS

Hinge Inspection

NOTE: If Hinge Inspection is performed proceed with the rest of this Card.

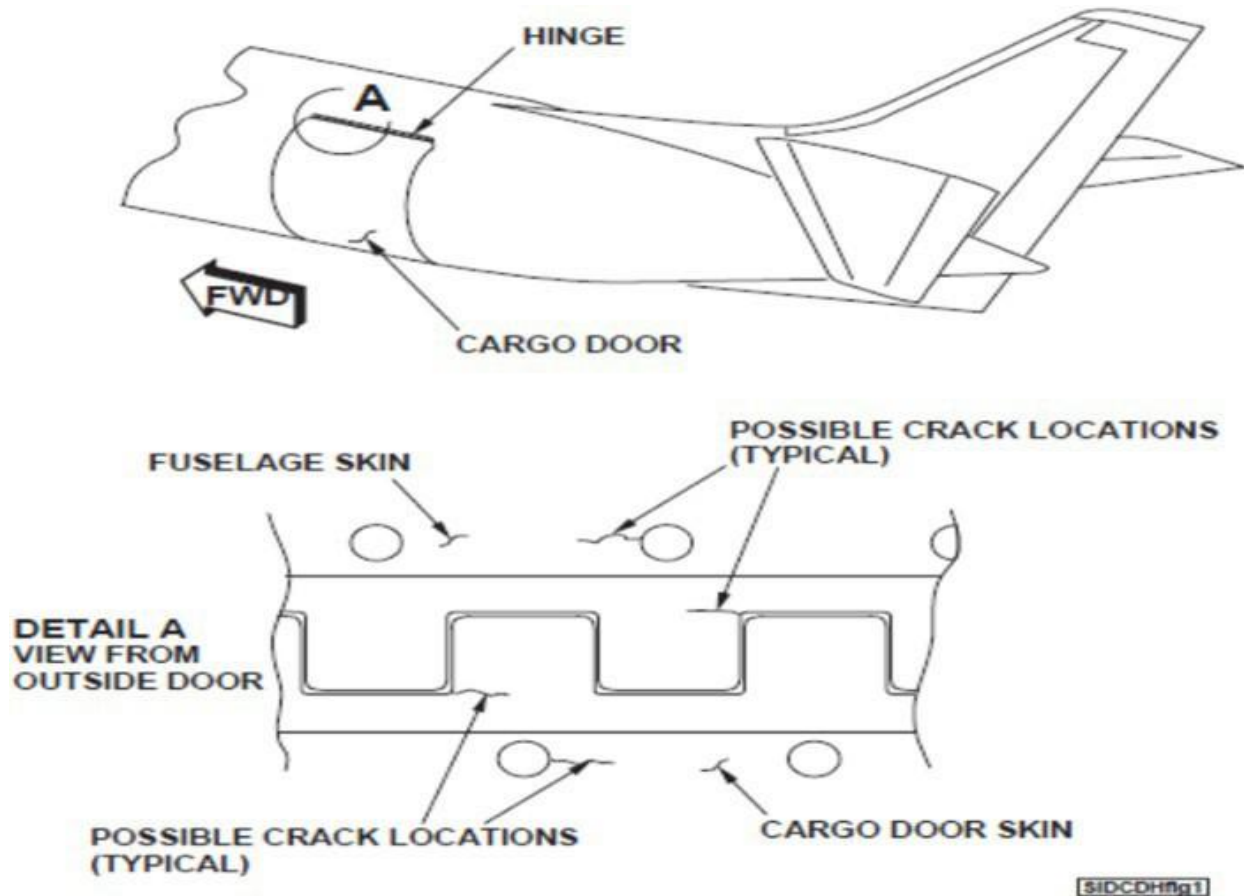
Hinge Replacement

NOTE: If replacement is performed, refer to SA227 SRM for replacement details.

1. Clean the inspection area with solvent to remove dirt, grease, oil, and other substances that may interfere with the inspection.
2. Adhere to procedures for Eddy Current Inspection given in the Structural Repair Manual, Chapter 51-30-07.
3. Refer to Figure 1. Inspect the hinge tabs and around fastener holes along the length of the hinge. Inspect the top piece (on fuselage) and bottom piece (on cargo door). Observe the phase and amplitude changes on the instrument.
4. Cracks are most likely to occur near the ends of the hinge.
5. If an indication is noted, carefully repeat the inspection pass in the opposite direction to verify the indication.
6. All cracks detected shall be reported to M7 Aerospace Service Engineering. Report the location, direction, and length of each crack.
7. Complete the NDT inspection block below:

S.I.D. 52-31-01 SA226/SA227 Cargo Door Hinge

2 of 2



SA226/SA227 Cargo Door Hinge
Figure 1

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D 55-10-01 SA226/SA227 Rib Strap at Horizontal Stabilizer

DATE	AC REG#	AC SN	STATION
TAT	TAC	WORKORDER #	

SUPPLEMENTAL INSPECTION NUMBER: S.I.D 55-10-01 - SA226/SA227 Rib Strap at Horizontal Stabilizer Rear Spar at BL 3.1

INTERVAL: Initial – 35000 FH since new, Repeat – N/A

EFFECTIVITY: SA227 – All aircraft up to S/N 786

ACCESS/LOCATION: Horizontal Stabilizer Rear Spar

DETECTABLE CRACK SIZE: N/A

INSPECTION METHOD: Refer to Fairchild Service Bulletin 227-55-007.

PURPOSE: Reinforcement of horizontal stabilizer rear spar upper and lower caps to eliminate possible fatigue cracking of rib strap at BL 3.1.

INSPECTION INSTRUCTIONS

1. Accomplish Fairchild Service Bulletin 227-55-007 if not already accomplished.

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D. 57-10-03 SA226/SA227 Wing Main Spar Lower Cap at Station 9

DATE	AC REG#	AC SN	STATION
TAT	TAC	WORKORDER #	

SUPPLEMENTAL INSPECTION NUMBER: S.I.D. 57-10-03 - SA226/SA227 Wing Main Spar Lower Cap at Station 9

INTERVAL: Initial – 14300 FH, Repeat – 10000 FH

EFFECTIVITY: SA227 – All aircraft

ACCESS/LOCATION: Wings

DETECTABLE CRACK SIZE: 0.08 INCH

INSPECTION METHOD: Bolt Hole Eddy Current

PURPOSE: Inspection of aluminum spar cap extrusions for fatigue cracks or other damage.

INSPECTION INSTRUCTIONS

1. Inspect left and right wing per FMP 57-011 (See SA227 Supplemental Inspection Document, Appendix C). Inspect all bolt holes in the spar cap from wing station 7 to 11 left and right.
2. Complete the NDT inspection block below:

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D. 57-10-05 SA227 Wing Main Spar Lower Cap at Station 99

1 of 2

DATE	AC REG#	AC SN	STATION
TAT	TAC	WORKORDER #	

SUPPLEMENTAL INSPECTION NUMBER: S.I.D. 57-10-05 - SA227 Wing Main Spar Lower Cap at Station 99

INTERVAL: Initial – 20000 FH, Repeat – 5000 FH

EFFECTIVITY: SA227 – All aircraft

ACCESS/LOCATION: Wings

DETECTABLE CRACK SIZE: 0.10 INCH

INSPECTION METHOD: Surface Eddy Current

PURPOSE: Inspection of aluminum spar cap extrusions for fatigue cracks or other damage.

EQUIPMENT:

The following equipment is recommended to perform the inspection. Equivalent eddy current test equipment may be used if the equipment is capable of achieving the required frequency range and sensitivity.

100 to 500 kHz shielded absolute metal shaft probe, NORTEC stock no. 9213013.

NOTE: this probe requires a separate cable.

INSPECTION INSTRUCTIONS

1. Defuel the wings in accordance with the applicable Service/Maintenance Manual.
2. Gain access to the spar from stations 99 to 130 by removing the outboard nacelle access panel beneath the main spar, the fuel tank access panels outboard of the nacelle, and the fuel tank access panel aft of the nacelle. Refer to SA227 Maintenance Manual for removal instructions.
3. Adhere to procedures for Eddy Current Inspection given in the Structural Repair Manual, Chapter 51-30-07.
4. Refer to Figure 4. Inspect the exposed surfaces of the aluminum spar cap extrusions between stations 96 and 133, left and right wing. Observe the phase and amplitude changes on the instrument.
5. For alternate Eddy Current inspection method between wing stations 104.71 and 133, refer to Appendix B of the SA227 Supplemental Inspection Document.
6. Detection of a crack may indicate complete failure of the part.
7. If an indication is noted, carefully repeat the inspection pass in the opposite direction to verify the indication.
8. All cracks detected shall be reported to M7 Aerospace Service Engineering. Report the location, direction, and length of each crack.
9. Vacuum all loose sealant and other particles from fuel tank.
10. Reseal in accordance with SRM 51-30-03
11. Close out the fuel tank and nacelle in accordance with SA227 or Commuter Category MM.
12. Complete the NDT inspection block below:

NOTE: Cracks are most likely to occur at stations 99 and 130. Stations with fasteners are more likely to have cracks than stations without fasteners.

S.I.D. 57-10-05 SA227 Wing Main Spar Lower Cap at Station 99

2 of 2

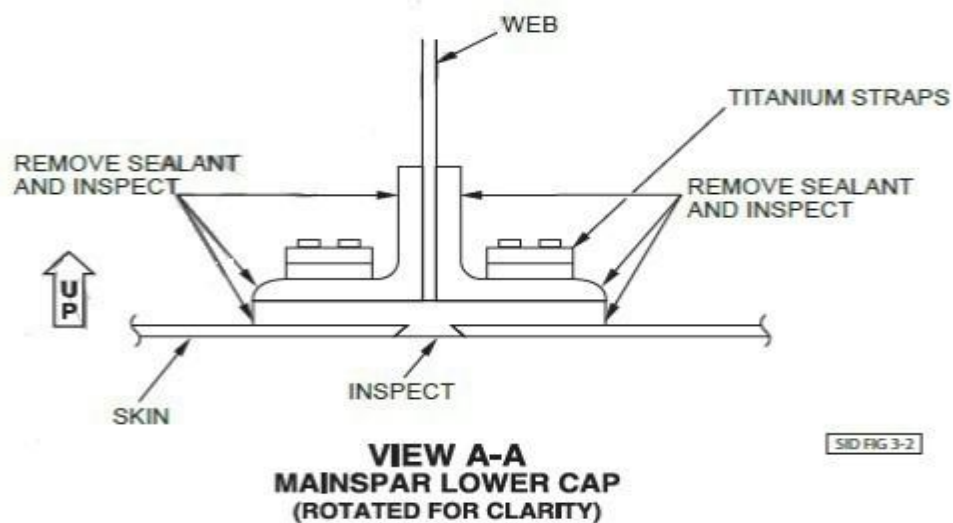
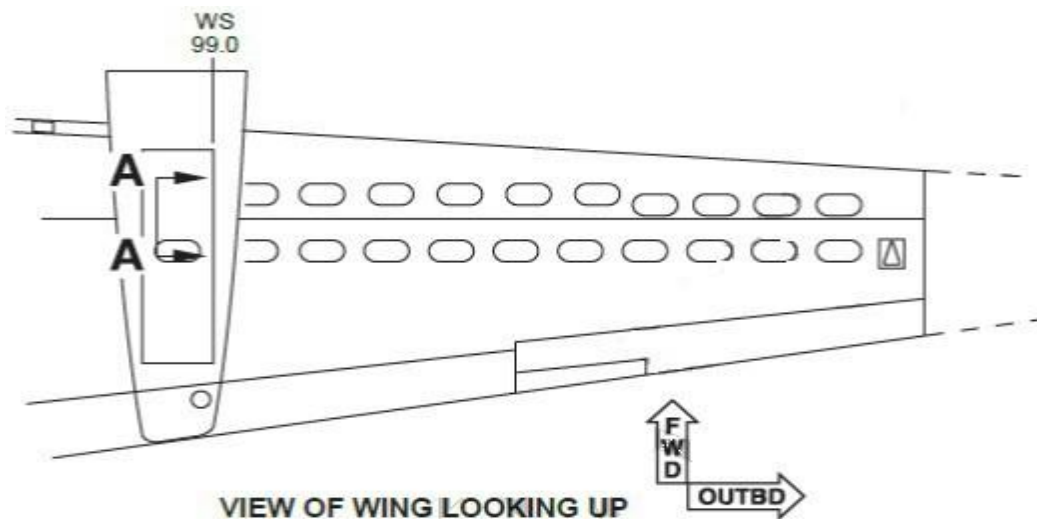


FIGURE 4

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D. 57-10-06 SA226/SA227 Lower Wing Skin Splice at WS 27

1 of 3

DATE	AC REG#	AC SN	STATION
TAT	TAC	WORKORDER #	

SUPPLEMENTAL INSPECTION NUMBER: S.I.D. 57-10-06 - SA226/SA227 Lower Wing Skin Splice at WS 27

INTERVAL: Initial – 11800 FH, Repeat – 5500 FH

EFFECTIVITY: SA227 – All aircraft up to S/N 591.

ACCESS/LOCATION: Inside center wing

DETECTABLE CRACK SIZE: 0.10 INCH

INSPECTION METHOD: Surface Eddy Current

PURPOSE: Inspect for cracks in belly skin at splice strap and in stringers 16-21 inboard of rib at WS 27.

EQUIPMENT:

The following equipment is recommended to perform the inspection. Equivalent eddy current test equipment may be used provided that the equipment is capable of achieving the required frequency range and sensitivity.

100 to 500 KHz shielded absolute metal shaft probe, NORTEC stock no. 9213013.

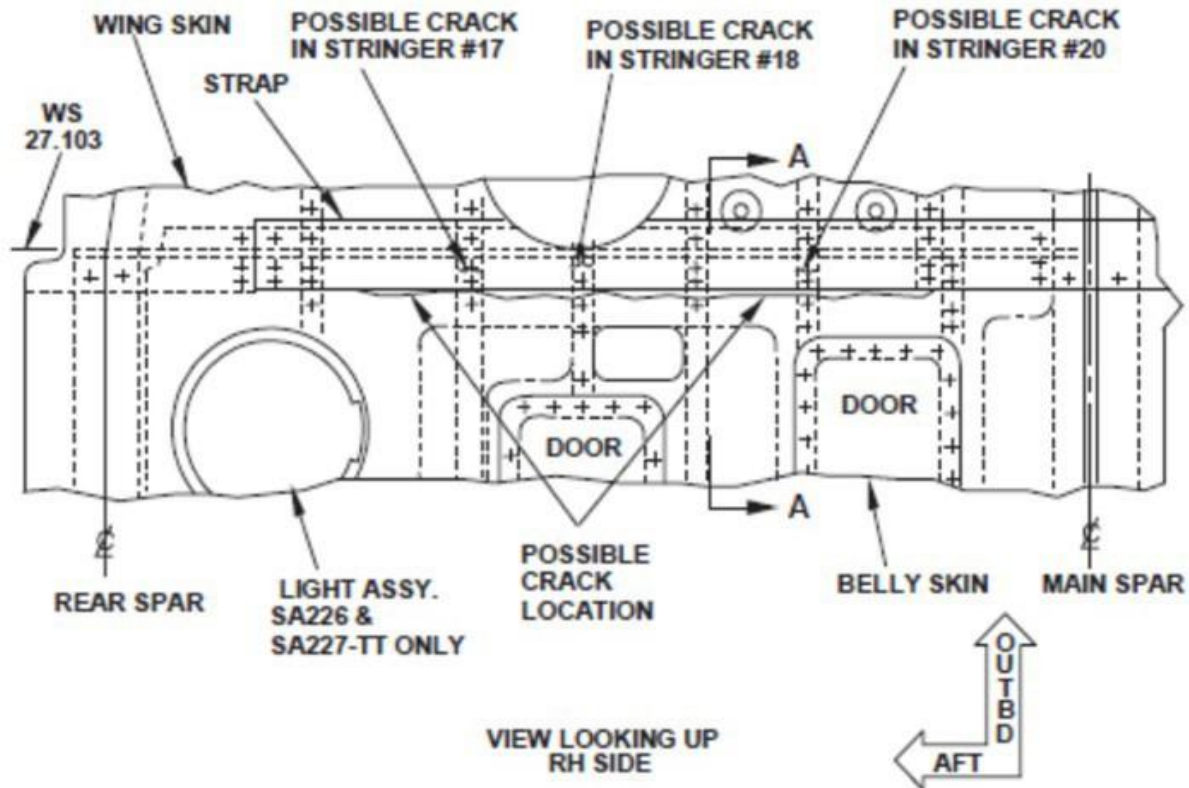
NOTE: this probe requires a separate cable.

INSPECTION INSTRUCTIONS:

1. Gain access to inside of wing between main spar and rear spar by removing six access doors Refer to SA227 Maintenance Manual for removal instructions.
2. Clean the inspection area with solvent to remove dirt, grease, oil, and other substances that may interfere with the inspection.
3. Adhere to procedures for Eddy Current Inspection given in the Structural Repair Manual, Chapter 51-30-07.
4. Refer to Figure 5, Sheets 1 and 2. Inspect the outside surface of the belly skin just inboard of the splice strap at WS 27, left and right side, from main spar to rear spar.
5. Inspect the inside surface of the belly skin around the fastener holes in the splice just inboard of WS 27, left and right side, from main spar to rear spar. Refer to Figure 5, Sheet 2.
6. Inspect stringers 16 through 21 around the fastener holes just inboard of the rib at WS 27, left and right side. Refer to Figure 5, Sheets 1 and 2.
7. If an indication is noted, carefully repeat the inspection pass in the opposite direction to verify the indication.
8. All cracks detected shall be reported to M7 Aerospace Service Engineering. Report the location, direction, and length of each crack.
9. Close out the wing in accordance with SA227 Maintenance Manual.
10. Complete the NDT inspection block below:

S.I.D. 57-10-06 SA226/SA227 Lower Wing Skin Splice at WS 27

2 of 3

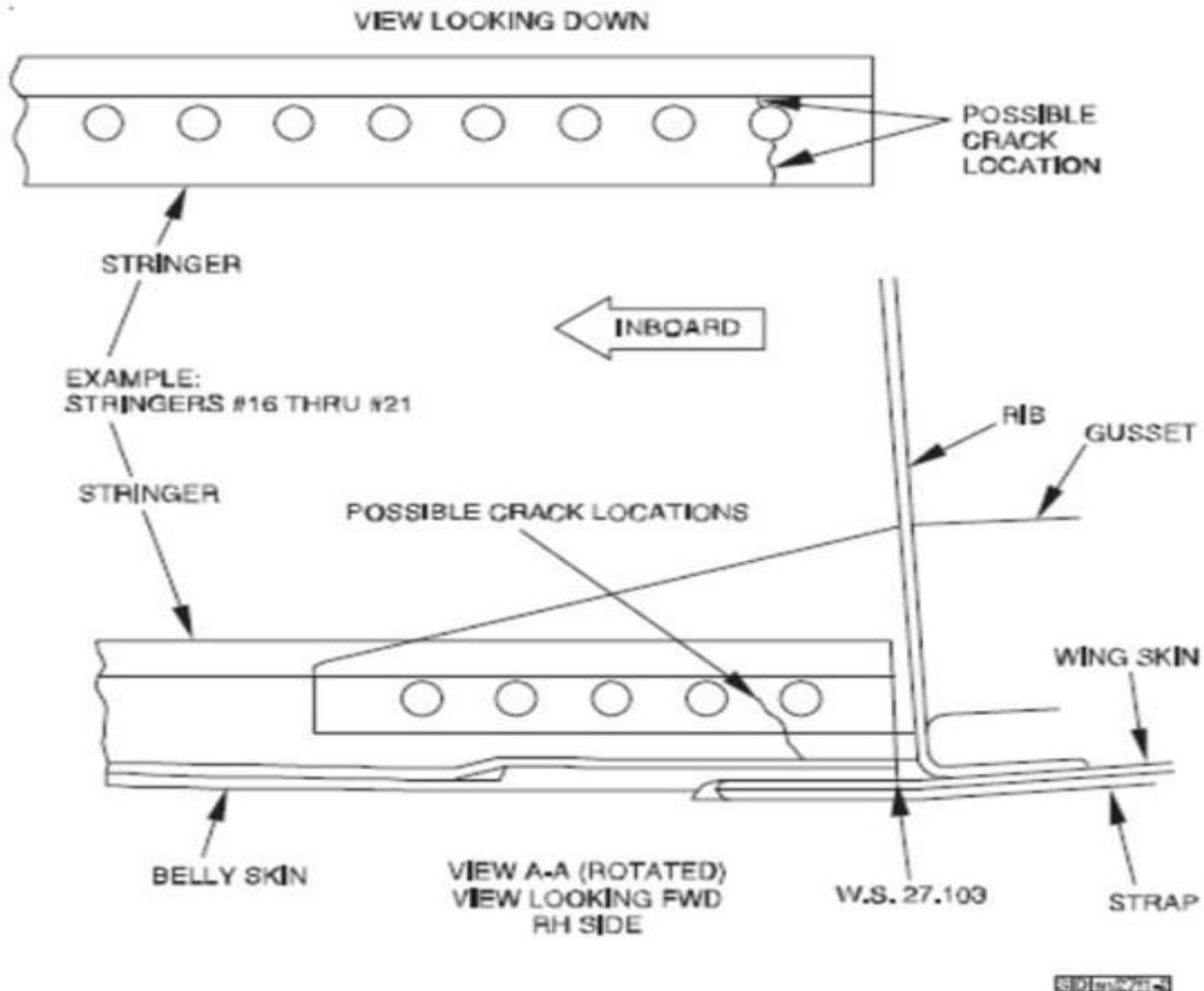


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SA226/SA227 LOWER WING SKIN SPLICE AT WS 27
FIGURE 5 (SHEET 1)

S.I.D. 57-10-06 SA226/SA227 Lower Wing Skin Splice at WS 27

3 of 3



SA226/SA227 LOWER WING SKIN SPLICE AT WS 27
FIGURE 5 (SHEET 2)

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE

S.I.D. 71-21-01 SA227 Engine Mount at Firewall

1 of 2

DATE	AC REG#	AC SN	STATION
TAT	TAC	WORKORDER #	

SUPPLEMENTAL INSPECTION NUMBER: S.I.D. 71-21-01 - SA227 Engine Mount at Firewall

INTERVAL: Initial – 1000 FH, Repeat – N/A

EFFECTIVITY: SA227 – All airplanes with 27-62114 engine mount truss, except S/N 892, 893, and 895 and up.

ACCESS/LOCATION: N/A

DETECTABLE CRACK SIZE: N/A

INSPECTION METHOD: Fluorescent Penetrant

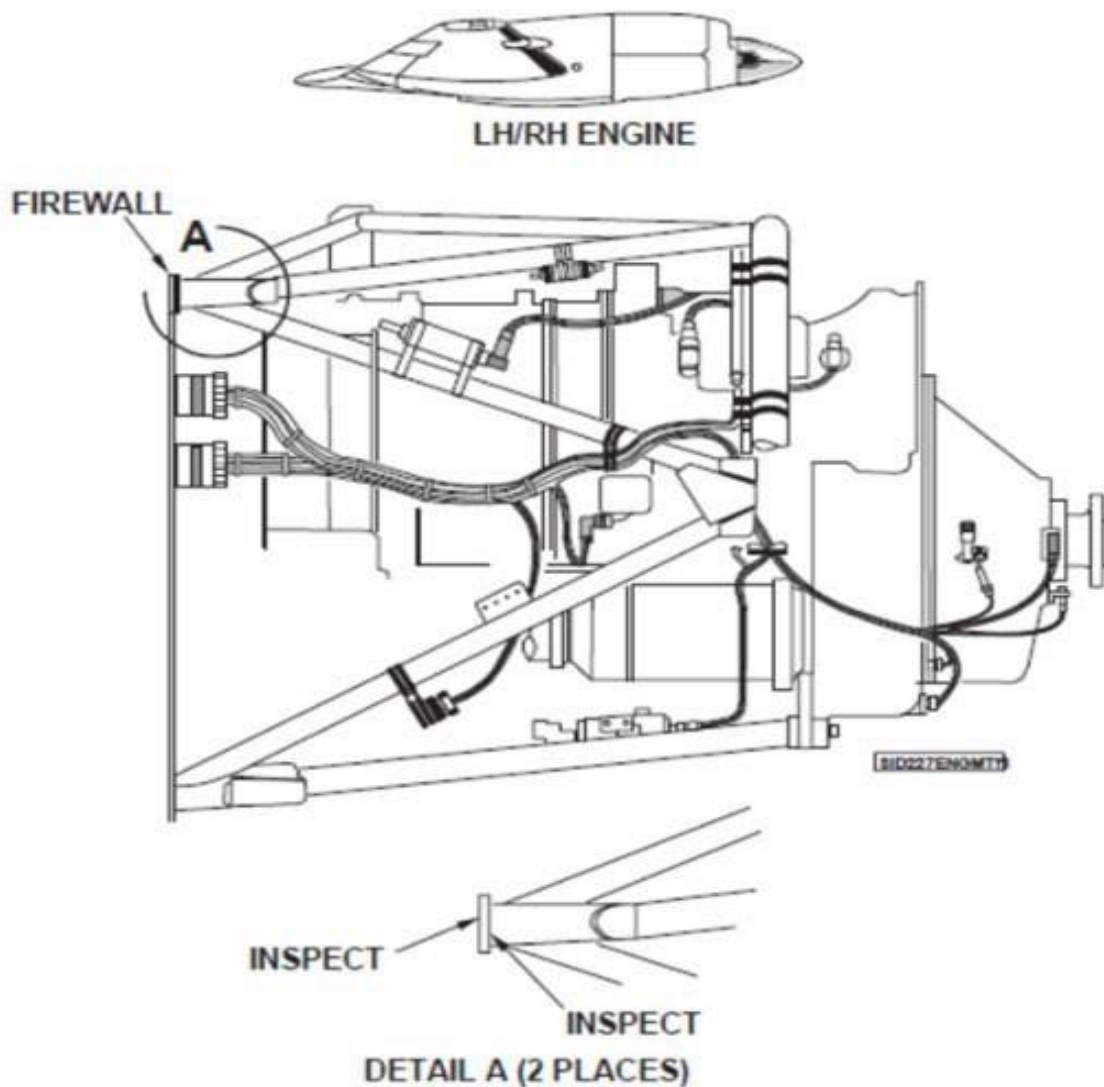
PURPOSE: Inspect for fatigue cracks in end plate and at weld of end plate to tubing.

INSPECTION INSTRUCTIONS

1. Clean the inspection area with solvent to remove dirt, grease, oil, and other substances that may interfere with the inspection.
2. Remove paint and primer from the inspection area using an approved chemical paint stripper.
3. Adhere to procedures for Fluorescent Penetrant Inspection given in the Structural Repair Manual, Chapter 51-30-07.
4. Refer to Figure 7. Inspect end plate at both upper mount points on truss. Inspect face of end plate and where end plate is welded to tubing, as shown in Figure 7.
5. All cracks detected shall be reported to M7 Aerospace Service Engineering. Report the location, direction, and length of each crack.
6. If no cracks are found, prime and paint stripped areas in accordance with Structural Repair Manual. Do not prime or paint mating surface of end plate where it contacts firewall.
7. Complete the NDT inspection block below:

S.I.D. 71-21-01 SA227 Engine Mount at Firewall

2 of 2



SA227 ENGINE MOUNT AT FIREWALL
FIGURE 7

SIGNATURE OF PERSON PERFORMING NDT	CERTIFICATE NUMBER & TYPE IF APPLICABLE
IF APPLICABLE SIGN INSPECTOR BLOCK BELOW, IF NOT APPLICABLE N/A INSPECTOR BLOCK	
INSPECTOR'S SIGNATURE	CERTIFICATE NUMBER & TYPE