

EO 05-45B-7B

ROYAL CANADIAN AIR FORCE



INSPECTION & REPAIR
OF EXPEDITOR AIRCRAFT

"REVISION"
NOTICE

**LATEST REVISED PAGES
SUPERSEDE THE SAME
PAGES OF PREVIOUS DATE**

Insert revised pages into basic
publication. Destroy superseded pages.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

23 JAN 61

Revised 6 Mar 62

LIST OF RCAF REVISIONS

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PART 1
GENERAL INSTRUCTIONS

GENERAL INSTRUCTIONS

1.1 DEFINITION

1.1.1 This EO states the requirements of the Department of National Defence, hereinafter called the RCAF, for the Inspection and Reconditioning of Expeditor 3 Aircraft.

1.1.2 This EO is divided into three parts:

PART 1 - General Instructions - This part covers intended use of this EO; Glossary of Terms; Responsibility; Revisions; and Requisition and Source of Supply.

PART 2 - General Technical Requirements - This covers technical data of a general nature applicable to all types of aircraft.

PART 3 - Specific Inspection and Repair Requirements - The detailed inspection and repair requirements are outlined in this part.

1.2 INTENDED USE

1.2.1 This EO establishes the inspection and repair requirements for the accomplishment of Third and Fourth Line Maintenance on RCAF aircraft on an individual or calendar basis as required.

1.3 GLOSSARY OF TERMS

1.3.1 For the purpose of this EO the following terms shall apply:

- (a) CAIR Facility - As used herein means either contractor or RCAF Depot facilities as applicable.
- (b) Inspect or Check - Indicates a thorough and searching inspection of the item specified, to determine identity, installation, condition, operation and security. Components shall be exposed for inspection and if necessary shall be removed, disassembled and tested to determine the extent of wear, damage or deterioration. Inspection includes operation within specified limits of the applicable RCAF Engineering Order.
- (c) Complete Aircraft - As used herein, describes the aircraft structure, components and equipment. This will consist of these items listed in the applicable aircraft Parts List Engineering Order.
- (d) Functional or Operational Check or Test - As used herein means that the function and operation of specified units will be checked or tested in either the aircraft or shops, using the specified procedures and limitations in accordance with the applicable Engineering Orders.
- (e) Bench Check - As used herein means that the units specified shall be removed from the aircraft, checked and tested, using shop equipment, procedures and limits specified in the applicable Engineering Orders.

1.3 GLOSSARY OF TERMS (Cont'd)

1.3.1 (Cont'd)

- (f) LAW - As used herein means "In Accordance With" referenced Directive.
- (g) Inspector - As used herein means the RCAF Quality Control Representative at the contractor's plant.

1.4 RESPONSIBILITY

- 1.4.1 The Air Officer Commanding, Air Materiel Command, RCAF Station Rockcliffe, Ottawa, Ontario, is responsible for the preparation of this EO and the subsequent revisions thereto.

1.5 REVISIONS

- 1.5.1 Revisions to this EO will be published when necessary to add, delete, revise or change frequency of requirements. Such revisions shall be based on factual data accumulated as a result of inspection and maintenance experience with the aircraft concerned based on UCR's, TFR's, etc.

1.6 REQUISITION AND SOURCE OF SUPPLY

- 1.6.1 Copies of this EO may be requisitioned as follows:

- (1) RCAF Units are to submit their requests in accordance with CAP 16, Vol 1, Chap 21. 2.
- (2) Contractors are to request copies through the Technical Services Unit (TSU), Technical Services Detachment (TSD) or Technical Services Representative (TSR) as applicable in their area.

PART 2
GENERAL TECHNICAL REQUIREMENTS

2.1 TECHNICAL DATA

2.1.1 General engineering and maintenance practices shall conform to the following engineering orders, specifications and drawings.

SPECIFICATIONSRoyal Canadian Air Force

PROC 101-1	Quality Control of Aircraft and Associated Equipment
PROC 101-6	Rubber Materials Age-Control of in Aeronautical Systems.
CAP 16 Vol 1	RCAF Supply Instructions

Canadian Government Specification Board

1-GP-108	Paint, Acid and Alkali Resistant, Black
2-GP-3	Chip Soap and Powdered Soap for Laundry Purposes (High Titre)
3-GP-26	Oil, Hydraulic, Petroleum Base
3-GP-335	Oil, General Purpose, Low Temperature Lubricating.
3-GP-360	Lubricant; Gear, Universal (Grade No. 80).
3-GP-390	Lubricant, Gear, Universal (Grade 90)
3-GP-682	Grease, General Purpose, Aircraft Lubricating
3-GP-683	Grease, Aircraft and Instrument (for Low and High Temperatures).
3-GP-690	Grease, High Temperature, Lubricating

U. S. Military

MIL-W-5086	Wire, Electrical, 600 Volt, Copper, Aircraft
MIL-B-5087	Bonding, Electrical, For Aircraft.
MIL-W-5088	Wiring, Aircraft, Installation of
MIL-H-5593	Hose, Aircraft, Low Pressure, Flexible
MIL-H-6000	Hose, Aircraft, (Fuel, Oil, Coolant, Water and Alcohol)
MIL-G-6711	Graphite, Lubricating
MIL-P-6889	Primer, Zinc Chromate, for Aircraft Use
MIL-R-6944	Welding Rods and Wires Magnesium Alloys
MIL-H-7938	Hose, Rubber, Flame-Resistant
MIL-H-8788	Hose, Aircraft Hydraulic and Pneumatic, High Pressure.
MIL-H-8789	Fitting End, Attachable Hydraulic and Pneumatic, High Pressure Hose
MIL-H-8790	Hose Assemblies, Aircraft Hydraulic and Pneumatic, High Pressure (3000 PSI).
MIL-H-8794	Hose, Rubber, Aircraft Hydraulic Pneumatic, Fuel and Oil Resistant
MIL-H-8795	Hose Assemblies, Rubber, Aircraft, Hydraulic, Pneumatic, Fuel and Oil Resistant.

2.1 TECHNICAL DATA (Cont'd)**PUBLICATIONS****RCAF Engineering Orders****GENERAL PUBLICATIONS**

EO 00-1-1	Numerical Index of Engineering Orders
EO 00-5-6	Instructions for the Use of -6 Engineering Orders.
EO 00-10 Series	Unsatisfactory Condition Report
EO 00-15-1	Aircraft Maintenance Record set
EO 00-15-9	Log Books and Forms - Forwarding on Movement or Transfer of Aircraft.
EO 00-15-13	General Log Book Form E133
EO 00-35-1	Shelf Life of Aeronautical Equipment and Related Materials.
EO 00-45-1	Maintenance Organization Telecommunication.
EO 00-50-Series	Engineering Guides and Procedures (as applicable)
EO 00-80 Series	Accident Prevention and Reporting

AIRCRAFT GENERAL

EO 05-1 Series	Aircraft General (as applicable)
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EXPEDITOR AIRCRAFT

EO 05-45B-01	List of Applicable Publications, Expeditor 3 A/C.
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ENGINES GENERAL

EO 10-1 Series	Engines General (as applicable)
EO 10A-1	Engines Piston Type General (as applicable)

ACCESSORIES

EO 15-1 Series	Accessories General (as applicable)
EO 05-1-2AX	Cleaning and Decontamination, Engine Oil Systems and Accessories.
EO 15-30-2	Installation and Maintenance of Propellers
EO 15-35-2	Description Maintenance Instructions all A/C Wheels.

AIRCRAFT INSTRUMENT

EO 20-25-1	Compass Installation, Compensation and Swinging.
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TELECOMMUNICATION

EO 35A-1-1	Lubricants Used in Airborne Telecommunication Equipment.
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2.1 TECHNICAL DATA(Cont'd)

PUBLICATIONS

RCAF Engineering Orders

TELECOMMUNICATION

EO 35A-1-8A	Elimination of Radio Noise in Aircraft.
EO 35AA-5 Series	Airborne Installations Communication (as applicable)
EO 35AA-10 Series	Airborne Installation Navigation (as applicable)
EO 35AC 1ASA3-2	Description and Maintenance Instructions - Static Discharger AN/ASA-3B

ELECTRICAL

EO 40-5A-2	Description and Maintenance Instructions Aircraft Storage Batteries Lead Acid.
EO 40-40-2B	Description and Maintenance Instructions - Relays and Solenoids
EO 40-90 Series	Electrical Wiring and Fittings.
EO 40-95AA-2	Description and Maintenance Instructions - Aircraft Fire Detection System.

FUELS OILS & FLUIDS

EO 45-1 Series	Fuels, Lubricants, Fluids etc.
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FINISHES & CLEANING MATERIALS

EO 50 Series	Finishes, Cleaners, Adhesives and Packing Material
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BEARINGS ANTI FRICTION

EO 75-10 Series	Bearings Anti Friction
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METALS

EO 105-1 Series	Metals General (as applicable)
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AIRCRAFT TIRES

EO 110-5-2	Inspection of Aircraft Tires
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AIRCRAFT HOSES

EO 110-10-10	Aircraft Hoses
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PLASTICS

EO 110-35 Series	Plastics
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2.1 TECHNICAL DATA (Cont'd)

PUBLICATIONS

RCAF Engineering Orders

QUALITY CONTROL

EO 120-05-2

Quality Control Acceptance of Aircraft.

DRAWINGS

NIL

- 2.1.2 The removal and re-installation of aircraft components and equipment shall conform to Basic Engineering Order 05-45B-2 and -3. The disassembly, inspection, repair, adjustment and tests shall conform to the applicable component AFEO and the Serviceability Concept shown as Appendix "A" to this EO.
- 2.1.3 All structural repair shall conform to Basic Engineering Order 05-45B-3. All repairs that do not conform to standard engineering practices or as called up in EO 05-45B-3 shall be replaced at the discretion of the inspectors. Repairs (High Stress Areas) beyond the scope of EO 05-45B-3 shall be approved by the prime Contractor or one designated as such.
- 2.1.4 Replacement of Parts shall be IAW EO 05-45B-4.
- 2.1.5 All torque values and safety measures shall conform to applicable Engineering Orders.
- 2.1.6 When condition of metal parts and material is doubtful they shall be inspected by the contractor's Quality Control Inspection Staff using methods and equipment acceptable to the RCAF Inspector. Inspection at Repair Depots shall be conducted by the RCAF Quality Control Inspection Staff.
- 2.1.7 All airframe anti-friction bearings requiring, inspection, maintenance or replacement shall be inspected and maintained IAW EO's 75-10-2, 75-10-2B and 75-10-15.
- 2.1.8 Fluids, fuel, oil, grease and compounds used shall conform to specifications IAW EO 05-45B-2, EO 45-1-2 and EO 45-1-4.
- 2.1.9 The entire aircraft shall be lubricated at points described for periodic inspection IAW EO 05-45B-2.
- 2.1.10 Inspection, installation and repair of electrical wiring, conduits and connections shall be carried out IAW EO 40-90 series.
- 2.1.11 All bonding shall be IAW specification MIL-B-5087.
- 2.1.12 All electrical wiring carrying 110 or higher voltage and all co-axial cables shall be checked by megger to 500 volts for insulation and continuity and replaced if necessary.

2.1 TECHNICAL DATA (Cont'd)

- 2.1.13 When control cables show signs of corrosion in the vicinity of the pulley, both the cable and the pulley shall be replaced.
- 2.1.14 Installation and replacement of airframe and engine flexible hose and fittings shall conform to EO 05-1-3, EO 110-10-10, and conform to the age limitations of PROC 101-6.
- 2.1.15 Installation, inspection and replacement of rigid tubing shall be IAW EO 05-1-3. All new or re-installed tubing shall be colour coded IAW EO 05-1-2Y.
- 2.1.16 Hydraulic seals and "O" rings shall be replaced by new weatherized parts if removed for inspection of components.
- 2.1.17 Third line inspection, maintenance and repair shall be carried out on all aircraft telecommunications wiring, fixed fittings and fixed components.
- 2.1.18 Aircraft R&O contractors are limited to first line maintenance IAW EO 00-45-1 on all removable telecommunication equipments. Inspections IAW the equipment - 7EO shall not be performed. Equipments which are found unserviceable when operationally checking the equipment under Part 3 shall be replaced with a serviceable equipment. Requirements for replacement equipments will be passed to the local TSR for action.

2.2 ACCEPTANCE, INSPECTION AND INVENTORY

- 2.2.1 One Flight Test designated as a "Zero" Flight Test shall be carried out at Contractor or Repair Depots prior to commencement of CAIR on aircraft received on a Fly-in basis.
- (a) One "Zero" Flight test shall be carried out on all aircraft prior to CAIR in accordance with the provisions of EO 05-1-1.
- (b) Flight Test cards shall be prepared in accordance with EO 00-50-17 Part 2 Page 8 sub-para (j) and in-flight unserviceabilities recorded by Ferry pilot shall be rechecked by Contractor/Repair Depot Test pilot after necessary servicing for airworthiness purposes.
- (c) Test flights for Jet and Reciprocating engine aircraft by the Contractor/Repair Depot shall be accomplished in accordance with the respective sections of EO 05-1-1 Part 7.
- (d) All in-flight unserviceabilities shall be recorded on applicable Test Card Reports and included as part of the Survey Inspection Report for rectification as required.
- 2.2.2 Check remaining quantity of RCAF fuel on arrival and credit to RCAF.
- 2.2.3 Each aircraft shall be inventoried. Inventory accountability and shortages shall be entered IAW CAP 16, Vol. 1.
- 2.2.4 Equipment or part shortages which would affect flight safety, or which require contractor facilities to install, shall be installed by the Contractor.

2.2 ACCEPTANCE, INSPECTION AND INVENTORY (Cont'd)

- 2.2.5 Shortages which do not affect flight safety, and which can be procured and installed by field maintenance facilities, shall be recorded in the L14, and the aircraft delivered as received.
- 2.2.6 All loose equipment shall be inspected, labelled and stored as approved by RCAF inspection. The loose equipment shall be re-inspected and installed prior to the departure of the aircraft.
- 2.2.7 RCAF Quality Control shall conduct surveillance type inspection as necessary.

2.3 HANDLING

- 2.3.1 All aircraft shall be handled, parked and moored IAW EO 00-50-19 and EO 05-45B-2.
- 2.3.2 Ground and flight operation of aircraft and engines shall be carried out IAW EO's 10A-10AA-2, 05-45B-1, 05-45B-2.

2.4 ARRIVAL SURVEY CHECKS

- 2.4.1 The following checks shall be carried out on arrival of the aircraft at the CAIR facility.
 - (a) Engines shall be run-up with all systems serviced and aircraft secured IAW EO 05-45B-1.
 - (b) All systems, accessories and equipment shall be checked out using EO 05-45B-1 "Pilot's Check List", as guide. Discrepancies previously noted shall be checked at this time.
 - (c) All fluid and air systems shall be inspected for leakage.
 - (d) Functional checks of all systems; mechanical, hydraulic, electric and electronic shall be carried out prior to dismantling for inspection. Major engine snags found by the contractor shall be brought to the attention of the Inspector for further direction.
 - (e) Replacement schedule of engines shall be IAW EO 00-50-7.
 - (f) All engines not to be replaced shall be serviced IAW EO 05-45B-2 and EO 10A-10AA-2.

2.5 DETERMINATION OF WORK REQUIREMENTS

- 2.5.1 Appropriate inspection sheets shall be provided to include provisions for recording aircraft serial numbers, discrepancies, item numbers, coding, certifying work and other data necessary.

2.5 DETERMINATION OF WORK REQUIREMENTS (Cont'd)

- 2.5.2 A work Book shall be assembled for each aircraft by serial number using Part 3 of this EO as a guide. All discrepancies found during:
- (a) Pre-flight test recorded on forms F140A or F140B as applicable for conditions found by unit test pilot prior to ferry to CAIR facility,
 - (b) run-up,
 - (c) inspection,
 - (d) functional checks,
 - (e) flight tests (where applicable) shall be entered in the Work Book.
- 2.5.3 Additional discrepancies discovered during work shall also be added to the Work Book.
- 2.5.4 A physical check of the aircraft shall be made to establish the modification status and incorrectly fitted or omitted modifications shall be added to the Work Book and recorded in the applicable part of the L14.
- 2.5.5 L14 records and completed F140A or F140B (as applicable) for each aircraft shall be examined. All engineering orders listed in Part 3 of this EO requiring Form L14 entry shall be recorded IAW EO 00-15-1. All engineering order modifications and recorded discrepancies not previously complied with, or corrected, shall be entered in the appropriate pages of the L14 Maintenance Record Set.
- 2.5.6 Pre-inspection test flying shall be accomplished by unit test pilot IAW EO 00-50-17 and EO 00-50-14.

2.6 PRESERVATION

- 2.6.1 Preservation of engines shall be carried out IAW EO 10A-10AA-9 and EO 05-1-9 conforming to anticipated length of storage.
- 2.6.2 Replacement Engines shall be serviced IAW EO 05-45B-2, EO 10A-10AA-2 and EO 05-1-9.
- 2.6.3 After all fluid systems have been checked for leakage, drain fuel and anti-icing fluid from aircraft, and dispose of in accordance with established procedures.
- 2.6.4 Hydraulic fluid and engine oil shall be disposed according to current regulations.
- 2.6.5 All synthetic rubber cells, and nylon fuel cells, shall be inhibited IAW EO's 05-1-3 and 05-1-2L.

2.7 CLEANING AND CORROSION TREATMENT

- 2.7.1 Clean and treat all external and accessible interior areas of aircraft, sufficiently to permit maximum visual inspection. Cleaning methods IAW EO 05-1-3 and 50-10 series. (Note - Brightening operations shall be carried out only if required).

2.7 CLEANING AND CORROSION TREATMENT (Cont'd)

- 2.7.2 Repaint or retouch all illegible painted markings. Do not replace decalcomania unless markings have been disfigured by skin repair during CAIR.
- 2.7.3 Special attention shall be given to wheel wells, and areas exposed to battery acid. Battery boxes and adjacent interior areas shall be neutralized and painted with bituminous paint conforming to Specification MIL-P-6883, or lacquer TT-L-54. Exterior areas adjacent to vent lines shall be painted with clear lacquer conforming to Specification MIL-L-7178. Cables shall be treated IAW EO 05-1-3 Part 10 as necessary.
- 2.7.4 Clean and treat plexiglas surfaces IAW EO 05-1-3.

2.8 ACCESSORY RE-USE AND REPLACEMENT REQUIREMENT

- 2.8.1 The Contractor shall comply with accessory re-use and replacement requirements IAW EO 05-45B-7A, Appendix "A". The following replacement requirements will supplement the requirements for each system listed in Part 3 of this EO. Telecommunication equipments are excepted.
- (a) Accessories with a calendar life shall be changed by the contractor if the time remaining is less than four months.
 - (b) Aircraft accessories having a replacement time schedule, but no record of operating time shall be assumed to be at 50 percent of listed replacement time, except when aircraft time since new is less than the necessary replacement time it shall be assumed that the accessory time is the same as the aircraft time.
 - (c) Power Plant accessories shall be replaced at the time specified on the replacement schedule.
 - (d) Power Plant accessories having a replacement time schedule, but no record of operating time, shall be assumed to be the same as the engine time.
 - (e) Aircraft and engine accessories which are removed due to expiration of operating time and defective accessories which require overhaul, shall be disposed of IAW CAP 16.
 - (f) Accessories which do not require replacement by reason of any of the foregoing conditions, shall be visually condition inspected and given an in place functional test to determine operational serviceability as directed in each system breakdown.
 - (g) All replacement and interchange of accessories shall be entered in the applicable log books.
 - (h) If latitude as outlined in EO 00-50-7 and remaining hours are sufficient to carry engine to the next periodic inspection then the engine shall remain in service. If insufficient time remains then the engine shall be removed and a new or overhauled engine installed.

2.9 MAINTENANCE SCHEDULE

- 2.9.1 Inspectional Work carried out under this EO shall automatically include all requirements of EO 05-45B-7A latest issue.
- 2.9.2 Aircraft completed to this EO shall be considered completed prior to test flight and shall be credited with a full (1200) hours inspection cycle and will begin a new inspection cycle regardless of the time at which they were phased into the contractor or Repair Depot.
- 2.9.3 Engines shall receive the next periodic inspection due.

2.10 MODIFICATIONS AND SPECIAL INSPECTIONS

- 2.10.1 All modifications which affect safety of flight e. g. , "before next flight" shall be embodied.
- 2.10.2 All outstanding 6B airframe modifications shall be embodied.
- 2.10.3 Outstanding 6A modifications which are applicable to the aircraft, aircraft engine their accessories and components as listed in the relevant Engineering Orders shall be embodied IAW EO 00-50-17. Telecommunication modifications are excepted.
- 2.10.4 Outstanding -5 Special Inspections which are applicable to the aircraft, AERO engine and their accessories and components as listed in the relevant Engineering Orders shall be performed.
- 2.10.5 When new modifications or special inspections are introduced, and it is wished to have them embodied, AMCHQ shall advise the TSD, by signal which shall act as an interim amendment pending release of the latest revision of the applicable EO -5 or EO -6A index.
- 2.10.6 Telecommunication modifications even when covered by an existing -6A or 6B shall require specific message authority before embodiment.

2.11 WEIGHING AND COMPASS SWING

- 2.11.1 All aircraft undergoing inspection, repair and modification at the Contractor or Repair Depot shall be weighed IAW EO 05-45B-8 and EO 05-1-8 on completion. The appropriate completed forms shall be forwarded IAW EO 05-1-8 Part 1.
- 2.11.2 All aircraft undergoing inspection, repair and modification at the Contractor or Repair Depot shall have a compass swing accomplished. An entry shall be made in the appropriate log books by the Contractor or Repair Depot indicating that this has been completed IAW EO 20-25-1.

2.12 QUALITY CONTROL

- 2.12.1 The Contractor shall maintain a system of quality control IAW Specification PROC 101-1.
- 2.12.2 The provisions of PROC 101-6 shall apply to airframes, components and accessories when the rubber items referred to in this EO are disturbed or removed during inspection and repair or if assemblies, components or accessories are replaced because of an unserviceability or time expiry in accordance with EO EO 00-50-7 Appendix "A" or -7A EO's Appendix "A".

2.13 ACCEPTANCE AND DELIVERY

- 2.13.1 Pre-flight checks and inspections shall be carried out by the contractor. When offering the aircraft for RCAF acceptance the contractor shall insert the following certification in column two of the L14-3; "Certified the Inspection and Repair has been completed IAW EO 05-45B-7B at _____ Flying hours". The certification shall be signed by the Chief Inspector or his delegated representative and shall signify the Contractor.
- 2.13.2 The Inspector shall conduct acceptance-inspection IAW EO 120-05-2, and shall certify, by signature, immediately under the contractors name in column two of L14-3, that the Inspection and Repair has been accomplished IAW EO 05-45B-7B.
- 2.13.3 Contractor's Acceptance flights shall be carried out IAW the provisions of EO 05-1-1 Part 7 Section 1 or 2 as applicable.
- (a) The contractor shall be responsible for final inspection at the end of the Inspection and Repair.
 - (b) The contractor shall carry out primary and pre-flight inspections IAW the relevant -7 EO.
 - (c) The contractor shall carry out the first flight only as subsequent flights will be carried out by the RCAF CEPE. The only exceptions to this are:
 - (i) In the case of accidents resulting in damage to the aircraft, rescheduling of the aircraft through contractor test flight shall take place.
 - (ii) In case of incidents affecting the primary controls and/or airworthiness of the aircraft, where the cause factor involves faulty workmanship, non-compliance with maintenance orders, faulty materials, design or contractor maintenance, reflight by the contractor will be authorized at the discretion of the OC TSD in conjunction with the OC RCAF CEPE Detachment.
- 2.13.4 RCAF acceptance will be based on airworthiness and conformance to quality standards outlined in this EO. RCAF acceptance flight test shall be confined to the requirements of EO 05-1-1 and EO 00-50-14. The authority for airworthiness acceptability will in all instances rest with the RCAF test pilot.
- 2.13.5 Delivery of aircraft shall be accomplished IAW EO 00-50-17.
- 2.13.6 Log Books and forms shall be forwarded IAW EO 00-15-9.

PART 3

SPECIFIC INSPECTION AND REPAIR

3. SPECIFIC INSPECTION AND REPAIR REQUIREMENTS

3.1 INSPECTION AND MAINTENANCE REQUIREMENTS

- 3.1.1 Inspection and maintenance requirements are presented herein in a manner designed to eliminate the arbitrary aspects of a general overhaul specification, to detail the condition to look for and the extent to which this rectification is to be carried out. The extent of this rectification is limited to the minimum necessary to ensure that the aircraft will be made completely airworthy and that it will be able to perform its intended role.
- 3.1.2 Where possible working tolerances are quoted directly as an inspection guide and all applicable RCAF Engineering Orders are referenced. When detailed instructions are required for the testing and checking of components or the rectification of malfunction the applicable "-2" EO's and associated publications are listed. Where the engineering order or other instruction is preceded by "IAW" all portions of the check referred to shall be complied with.
- 3.1.3 The items listed in this specification have been grouped and coded for ready reference. The sequence used bears no relation to actual inspection and maintenance sequences. The inspection methods employed by various contractors or depots, the availability of personnel, and the facilities used are too variable to establish standardized sequencing in the specification. The listing used however, will facilitate the compilation of standardized work sheets to conform to the conditions under which the programme is to be carried out.
- 3.1.4 The first digit in the item numbers used in this specification designate the system being considered. These systems are indexed in the "Contents" of Part 3. The first number is followed by a capital letter "F" or "N" which indicates whether the check or inspection is to be conducted with power "OFF" or "ON". "N" indicates power "ON", "F" indicates power "OFF". The remaining numbers and lower case letters are item numbers.

(1)

Example

	6	N	20	(b)
	:	:	:	:
System.....	:	:	:	:
		:	:	:
Power On.....		:	:	:
			:	:
Item No.....			:	:
			:	:
Sub-Item No.....			:	:

(2) Inspection Item - Contains item number and a brief description of the items to be inspected.

3.1 INSPECTION AND MAINTENANCE REQUIREMENTS (Cont'd)

- (3) Coding - Identifies the method of inspecting the item, i. e.,
 - V - Visual Inspection (Note: Covers manual operation without use of special tools or "power on").
 - ETE - External Test equipment required to accomplish inspection.
 - EO - Engine operation required to accomplish inspection.
 - DIA - Partial disassembly of the aircraft, component or accessory is required to accomplish inspection.
 - DIS - Removal of item and bench disassembly and/or bench test required to accomplish inspection.
 - OT - Operational test required to accomplish inspection, engine power or external power may be utilized.
 - S - Servicing required.
- (4) Inspection Condition - Indicates the condition to be examined.
- (5) CAIR Guideline - Indicates the acceptable conditions and the extent of checking and maintenance to be performed. This column will list the applicable EO's to be referred to in rectifying unacceptable conditions, performing tests and checking modifications. The information contained in this column relates directly to each condition sought in the previous column.

WING GROUP

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
11F1	Center Section - Structural members and attachment fittings	V DIA	Corrosion, worn spots, cracks, bent tubes, bushings for wear and security.	Refer to EO 05-45B-3 on structural members. Magnetic inspection of structure in vicinity of undercarriage hinge pin bushings and slide tube clusters. Ensure security and cleanliness.
11F2	Centre Section - Surface skin and interior structure	V	Dents, distortion, corrosion, burnt areas, acid spillage, cracks and loose rivets.	Remove dents, repair cracks and replace loose rivets. Neutralize acid stained areas and repaint interior with paint Spec 1-GP-80. Treat corrosion IAW EO 05-1-3 and polish. Clean burnt areas and repaint with lacquer Spec MIL-L-7178. Ensure cleanliness.
11F3	Center Section - Fabric sealing patches	V	Torn, badly worn and/or peeling.	Replace deteriorated fabric.
11F4	Center Section - Firewalls	V	Cracks, dents, loose rivets, condition of rubber sealing strip, cleanliness.	Repair cracks, remove dents, replace loose rivets. Replace torn sealing strip. Ensure cleanliness.
11F5	Center Section - Fuel tank Sump Door	V	Cracks, dented sump doors and worn hinges.	Repair cracks. Remove dents from sump doors. Ensure security.
11F6	Center Section - Under-carriage door hinges and abrasion strips	V	Worn hinges and abrasion strips.	Replace worn and cracked hinges. Replace worn abrasion strips. Ensure security.
11F7	Flap Hinge bearings and brackets	V DIA	Alignment, security, freedom of movement, cracks, corrosion and cleanliness.	Ensure alignment and security. Replace worn bearings and repair brackets. Clean and lubricate with 3-GP-683.

WING GROUP (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
11F8	Center Section - Fuel tank covers	V	Warping and distortion. Cracks, worn spots and corrosion.	Replace broken hinges, remove dents and replace worn stiffeners. Ensure security. Tighten the screws adjacent to the fuselage, then back - off 1/4 turn.
11F9	Center Section - Oil tank covers	V	Warping and distortion. Cracks, worn spots and corrosion.	Remove dents, ensure cleanliness and security. Tank cover, gap strip, and tank cover retaining screws to be tightened and backed off a quarter turn.
11F10	Center Section - Inspection panels	V	Wear and fit.	Ensure proper fit and security.
11F11	Outer wing panels - Surfaces	V	Dents, scratches, corrosion, burnt areas, loose or pulled rivets. Oil canning.	Remove dents, scratches, excessive corrosion. Clean up burnt areas. Re-finish with lacquer Spec. MIL-L-7178. Replace loose or pulled rivets. Repair IAW Serviceability Concept.
11F12	Outer wing panels - Interior	V	Cracked ribs, loose fittings; distortion, corrosion and condition.	Repair or replace cracked ribs. Tighten loose fittings, repair distorted areas, remove excessive corrosion. Ensure cleanliness.
11F13	Outer wing panels - Fixed de-icer line	V	Security and chafing	Ensure security and routing.
11F14	Outer wing panels - Rear spar cut-out for Aileron rod	V	Cracks	Repair cracks.
11F15	Outer wing panels - Outer wing attachment bolts.	V	Fit, wear and security.	Torque to 150 ft. lbs. ensure security.
11F16	Outer wing panels - Gap strip.	V	Proper tension on screws. Elongation of screw holes.	Tighten and back off all screws 1/4 turn. Renew if screw holes elongated.

WING GROUP (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
11F17	Outer wing panels - Fillets, fairings	V	Corrosion, wear, dents fit and security.	Remove dents, ensure fit and security. Rubber strips pt No. 404-181000-2 under nacelle nose outboard fillet, ensure condition and positioning to prevent wear of wing skin.
11F18	Outer wing panels - Wing lightening hole fabric coverings at rear spar and root rib.	V	Wear and peeling.	Replace deteriorated fabric, ensure security.
11F19	Outer wing panels - Wing inspection covers and doors.	V	Damage, fit, security.	Remove dents, ensure fit and security.
11F20	Outer wing panels - Wing mooring lugs	V	Damage and security.	Remove cuts, burrs and ensure security.
11F21	Outer wing panels - Drain holes	V	Corrosion and obstruction.	Free drain holes from obstructions.
11F22	Outer wing panels - Aileron hinge	V	Damage, Cleanliness, free movement and security.	Replace worn hinge. Ensure security. Clean and lubricate with powdered Graphite MIL-G-6711.
11F23	Outer wing panels - Bonding leads and static dischargers.	V	Wear and Security.	Replace frayed bondings and dischargers. Ensure security. See EO 35AC-1ASA3-2.
11F24	Outer wing panels - Flux valve bracket (RH wing only)	V	Distortion, cracks and security.	Repair cracks, ensure security.
11F25	Wing Tips	V	Wear, dents and security.	Remove dents, ensure security. Ensure non-magnetic screws and anchor nuts used for RH tip only as specified.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
11F26	Ailerons	V	Damage and obvious defects, condition of fabric, movement and clearances, alignment of trailing edge.	Replace damaged or frayed bonding leads and static dischargers IAW EO 35AC-1ASA3-2. Small cuts and tears in fabric to be patched. Drain holes free from obstructions. Ensure freedom of movement and security.
11F27	Aileron hinges and inspection covers	V	Wear, cleanliness and security.	Replace worn hinge and hinge wire. Clean and lubricate with powdered graphite Spec. MIL-G-6711. Ensure security.
11F28	Aileron Tab	V	Wear, cleanliness, movement and security. Alignment with aileron trailing edge.	Free drain holes from obstructions, replace worn hinge and hinge wire. Clean and lubricate with powdered Graphite Spec. MIL-G-6711. Ensure security.
11F29	Flaps	V	Security condition alignment, travel and freedom of movement. Interior for broken rib stitching.	Operate and ensure freedom of movement and clearances. Adjust travel IAW EO 05-45B-2. Repair small cuts and tears in fabric by patching. Replace frayed bonding leads. Remove dents in metal protector plate. Ensure alignment and security. Repair broken rib stitching, IAW EO 05-45B-5/69.
11F30	Aileron Tab Mechanism	DIS	Check actuator shaft, 90° drive and universals, push-pull rod for wear and excessive play. Check taper pins for security.	Replace worn items, Lubricate 90° drive with 3-GP-683. Replace faulty or improperly installed taper pins.

BODY GROUP

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
12F1	Bulkhead Nose Compartment - Nose door and hinges, skin surfaces, lock and strap assembly, hold open rod support bracket and fuel tank door.	V	Dents, corrosion, loose rivets and worn hinges. Support bracket for wear and cracks.	Replace worn hinge bushings and attachment bolts. Remove dents and replace damaged strap assembly. Ensure security of lock. Replace broken rod support bracket. Remove dents and repair skin by reinforcing where dented by ice. Replace loose rivets and ensure security and fit of nose fuel tank filler cover. Renew placards IAW Serviceability Concept.
12F2	Nose Compartment - Fuel cell and tank cover assembly and Station 3 panel	DIS	Check nose fuel tank for chafing, leaks and security. Bulkhead seals for security.	Reseal loose fabric on tank cover with EC870 cement. Remove dents in Station 3 panel. Ensure security of all panels and covers and renew seals. Remove cell and inspect for cracks by flexing. Pressure test cell and Inhibit with #10 oil. Ensure security and freedom from chafing by foreign debris. Ensure sealing.
12F3	Pilot's Compartment - Visible Structure and fittings.	V	Attaching fittings for wear and security.	Replace badly worn seat attaching fittings and safety belt attaching plates.
12F4	Pilot's Compartment - Skin surfaces and access panel	V	Dents, corrosion and insulation for deterioration (Oil Soaked condition) Dzus Fasteners.	Remove dents. Ensure security of removable panel. Renew damaged Dzus fasteners. Replace oil soaked insulation.
12F5	Pilot's Compartment - upholstery, seats, safety harness pistol holder assy and relief tube assy.	DIA V	Fabric for wear and tears. Seat bodies and legs for cracks. Routing and deterioration of relief tube assembly. Corrosion condition of safety harness.	Patch torn upholstery. Repair cracks in seat bodies and leg assemblies. Clean and lubricate seat operating mechanism (Spec. 3-GP-335. Clean or replace safety harness IAW Serviceability Concept and EO 55-45-2, Part 5. Replace broken horn, venturi or deteriorated

BODY GROUP (Cont d)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
12F5	(Cont'd)			hose, and ensure routing of relief tube. Ensure security. Clean and disinfect relief tube. Clean corrosion. <u>3TM Aircraft only. Finish interior to new condition.</u>
12F6	Pilot's Compartment - Inertial Reel Assemblies.	V	Security and operation.	Ensure satisfactory operation and security.
12F7	Pilot's Compartment - Floor	V	Corrosion, damage, bent members, cleanliness. Check for stripped anchor nuts.	Repair damage to floors and metal trim. Ensure security and cleanliness. Renew stripped anchor nuts.
12F8	Pilot's Compartment - Belly section, floor supporting structure, flap and landing gear motor brackets.	V	Cracks, loose rivets, wear and cleanliness. Insulation.	Replace oil soaked insulation. Replace loose or missing rivets. Ensure cleanliness. Pilot and co-pilot floor channels for cracks particular attention to area adjacent to the rudder pedal cross shafts.
12F9	Cabin Compartment - Floor	V DIA	Cracks, wear, cleanliness and security. Condition of flare chute.	Repair damage to floors and metal trim. Repair damaged flare chute. Ensure security and cleanliness.
12F10	Cabin Compartment - Seats, belts, tables, upholstery	V DIA	Fabric for wear and tears. Seat bodies and legs for cracks. Security. Condition of seat belts.	Repair any torn upholstery and seat cushions IAW Serviceability Concept. Seat belts IAW Serviceability Concept and EO 55-45-2 Pt 5. Repair cracks in seats. Ensure security. <u>3TM aircraft only. Finish interior to new condition.</u>
12F11	Cabin Compartment - Skin surfaces.	V	Dents, distortion and corrosion.	Remove dents and distortion. Corrosion IAW Serviceability Concept.

BODY GROUP (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
12F12	Cabin Compartment - Cabin and lavatory doors and hinges, emergency exit.	V	Security, operation and fit. Chafing of fuselage skin around door opening.	Ensure proper fit of cabin and lavatory doors. Ensure operation of cabin door and emergency release mechanism. Ensure security. Renew scuff plate if worn. Repair damaged skins. Lubricate door hinges Spec. 3-GP-335.
12F13	Lavatory and Rear Baggage Compartment - Floor.	V DIS	Corrosion damage, security and cleanliness.	Repair damage to floors and metal trim. Ensure security and cleanliness.
12F14	Chemical Toilet and relief tube system	V	Corrosion, damage, security and cleanliness.	Remove and clean. Remove excessive corrosion, remove dents. Ensure security of toilet and toilet vent system. Disinfect.
12F15	Lavatory and Rear Baggage Compartment - Interior	V	Damage and security.	Remove dents, ensure security of removable panels.
12F16	Lavatory and Rear Baggage Compartment - Skin surfaces	V	Dents, distortion, corrosion.	Remove dents and distortion. Remove corrosion.
12F17	Tail Compartment - Skin and rivets.	V	Damage, loose rivets and lift hold re-inforcing plates.	Remove dents, replace loose rivets. Repair lift hole reinforcing plates.
12F18	Tail Compartment - Radio Racks	V	Cracks, damage and security.	Replace any cracked, damaged channels. Ensure security.
12F19	Tail Wheel Recess	V	Structure for distorted channels, corrosion, loose rivets, cracks.	Renew channels, remove corrosion. Repair cracks.
12F20	Tail Compartment - Station 12 Draft Panel	V	Check grommets and panel for wear.	Repair torn panel. Ensure security.

BODY GROUP (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
12F21	Pilot's Compartment - windshield, windows, window frames and catches	V	Windows, frames, sealing and security.	Replace cracked windows. Ensure security and proper sealing. Water test.
12F22	Pilot's - Co-Pilot's Sliding windows and Channels	V	Windows, channels, catches and sealing.	Replace cracked windows. Ensure freedom of movement in channels and operation of catches and rubber sealing strips.
12F23	Cockpit look-out - Windows	V	Windows and sealing.	Replace crazed or discolored windows. Test for leaks.
12F24	Cabin Windows	V	Windows, frames, sealing and security.	Replace crazed or discolored windows. Check sealing and security of windows and window frames.
12F25	Astrodome and Astro-compass mounting	V	Astrodome and release mechanism. Compass mounting for cracks and security.	Replace astrodome if cracked, crazed or discolored. Ensure serviceability of emergency release mechanism. Repair defective compass mounting. Ensure security.
12F26	Outer Tail Cone	V DIA	Wear, freedom of movement and corrosion. Check felt for wear.	Replace worn felt. Lubricate with 3-GP-683. Repair elongated holes. Remove excessive corrosion. Check for binding and freedom of movement. Ensure security.
12F27	Elevator Bell Crank Support Bracket	V	Examine pivot hole for elongation.	Repair if worn.

TAIL GROUP

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
13F1	Horizontal and Vertical Stabilizers	V	Check interior and exterior skin for corrosion, structural damage and loose rivets. Ensure security. Check attachment screws for tightness. Check abrasion shoe on vertical stabilizers.	Remove corrosion and repair damaged structure. Replace loose rivets and tighten attachment screws. Repair abrasion shoes and coat with conductive coating compound. (B. F. Goodrich #A-56-B.) Repair damage per EO 05-45B-3 part 3. Lubricate bearings with 3-GP-683.
13F2	Tail Plane - Inspection Panels and Doors	V	Check panels, doors and fasteners for damage.	Repair damaged panels or doors and replace fasteners if they do not hold panel security.
13F3	Rudders	V DIA	Check security of hinge and hinge bolts. Check movement and alignment, fabric for tears, trim tab hinge and hinge pin for damage, security and free movement, bondings for condition. Inspect felt strips in rudder horn boxes. Static discharge wicks for wear and security.	Ensure security. For alignment see EO 05-45B-2, Part 2, Section 4, Para. 44. Repair torn fabric per EO 05-45B-3, Part 7. Repair damage to trim tab, alignment per EO 05-45B-2, Part 2, Section 4, Para 51. Replace broken bondings. Felt strip lubrication 3-GP-683. Repair static discharge wicks IAW EO 35AC-1ASA3-2.
13F4	Elevator	V DIA	Check hinges for security. Check movement and alignment, fabric for tears, trim tabs, hinges and hinge pins for damage, security and free movement, bondings and discharge wicks for wear, damage and security.	Remove tail cone. Ensure security. For alignment see EO 05-45B-2, Part 2, Section 4, Para 19. Repair torn fabric per EO 05-45B-3, part 7. Repair damaged trim tab and ensure security. Replace broken bondings. Repair static discharge wicks IAW EO 35AC-1ASA3-2.
13F5	Fairings	V DIA	Check for dents, distortion.	Repair IAW EO 05-45B-3

SURFACE CONTROL SYSTEMS

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
14F1	Elevator Bell Crank and Push Rod	V	Check for excessive wear and freedom of movement.	Replace if worn. Ensure proper installation of push rod. Lubricate with 3-GP-683.
14F2	Rudder Bell Crank, Stops and Pivots	V	Check for excessive wear and proper movement. Check stops for security.	Replace if worn. Tighten stop attaching screws.
14F3	Elevator Trim Tab Mechanisms	V DIS	Check actuator shaft, 90° drives and universals, push-pull rods for wear and excessive play. Check taper pins for security. Check sprocket at Stn. 380 for wear.	Replace worn items. Lubricate with 3-GP-683. Replace faulty or improperly installed taper pins.
14F4	Rudder Trim Tab Mechanisms	V DIS	Check actuator mechanism for backlash. Check tab pivot set screw for wear. Check sprocket for wear and 90° drive assembly for play.	Replace if condition as per EO 05-45B-2, Part 2, Section 4. Replace if wear is apparent in sprocket. Replace 90° drive if play is found. Lubricate with 3-GP-683.
14F5	Control Columns	V	Check control column for security. Check aileron and elevator controls for full and free movement. Check control wheels for looseness.	Ensure security. Adjust LAW EO 05-45B-2, Part 2, Section 4. Lubricate aileron chains and sprockets with 3-GP-335. Lubricate cross shaft bearings with 3-GP-683.
14F6	Rudder Pedals	V	Check for security and free movement. Check rudder and elevator controls for interference at extreme positions.	Ensure security. Adjust LAW EO 05-45B-2, Part 2, Section 4. Lubricate bearings with 3-GP-683.

SURFACE CONTROL SYSTEMS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
14F7	Elevator Aileron and Rudder Trim Controls	V	Check for full and free movement. Check for correct position indicator readings. Check security.	Adjust IAW EO 05-45B-2, Part 2, Section 4. Ensure security.
14F8	Ailerons, Rudders and Elevator - Neutral Position	V	Check for neutral position of controls with rudder pedals and control column in neutral position.	Rig IAW EO 05-45B-2, Part 2, Section 4.
14F9	Rudder Balance Cables	DIA	Check for fraying, kinks, corrosion and broken strands by flexing over entire length. Check for cleanliness and wear over pulleys and fairleads.	Replace cables IAW EO 05-1-3 part 10.
14F10	Rudder Cables	DIA	Check cables for fraying, kinks and corrosion by flexing over entire length. Check for cleanliness and wear over pulleys and fairleads.	Replace cables IAW EO 05-1-3 part 10. Replace Co-Pilot's LH Rudder cable if sleeve forward of station 102 is worn through.
14F11	Cables - Elevator and Elevator Trim Tab	DIA	Check cables for fraying, kinks and corrosion by flexing over entire length. Check for cleanliness and wear over pulleys and fairleads.	Replace cables IAW EO 05-1-3 pt 10.
14F12	Cables - Aileron and Aileron Trim Tab	V DIA	Check cables for fraying, kinks and corrosion by flexing over entire length. Check for cleanliness and wear over pulleys and fairleads.	Replace cables IAW EO 05-1-3 Pt 10
14F13	Aileron Tab Actuator	V	Check conditions of actuator, freedom of movement and excessive play.	Replace if screw shows excessive wear. Tighten set screw, lubricate with 3-GP-683.

SURFACE CONTROL SYSTEMS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
14F14	Rudder Trim Tab Cable	V DIA	Where accessible, check for fraying, kinks and corrosion by flexing over entire length. Check for cleanliness and wear over pulleys and fairleads.	Replace cables IAW EO 05-1-3 Part 10.
14F15	Control Cables (General)	DIA	Check all cables throughout entire length for proper installation. Check swaged fittings and turnbuckles for security and wire locking.	Check cable tensions per EO 05-45B-2, Part 2, Section 4. Ensure proper run of cable.
14F16	Pulleys and Fairleads	DIA DIS	Check all control pulleys for roughness, security and wear, freedom of movement. Check fairleads for cracks and wear.	Replace pulleys if worn. Repair or replace defective fairleads, lubricate pulley bearings with 3-GP-683.
14F17	Control Lock Assy.	V	Check for broken springs security.	Replace broken springs and/or plungers. Ensure security.

WING FLAP CONTROL SYSTEM - MECHANICAL

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
15N1	Flap System	V ETE	Operation, check for elongated bolt and taper pin holes.	Remove and straighten bent shafts. Repair elongated holes.
15F2	Flap Travel Nut, Stop and Screw Shaft	V	Cleanliness and lubrication. Stop for wear.	Clean and lubricate with powdered Graphite MIL-G-6711. Replace stop if worn.
15F3	Flap Motor Gear Box and Gears	V DIA	Wear, cleanliness.	Replace worn gear, clean and lubricate with 3-GP-682.
15F4	Flap Outboard Actuating Screw	V DIS	Wear, cleanliness and lubrication.	Dismantle, clean and lubricate with 3-GP-682. Ensure security.
15F5	Flap Outboard Gear Boxes	V	Security and lubrication.	Ensure security and lubricate with 3-GP-682.
15F6	Handcrank Chains	V	Damaged links, security and lubrication.	Clean and lubricate with light oil - 3-GP-335. Ensure security. Replace damaged chains.

MAIN LANDING GEAR SYSTEM

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
16F1	Undercarriage tubular V-brace hinge pins and bushings.	DIS	Check for distortion and wear. Check bushings and pins for fit. Lubrication.	Magnaflux hinge pins. Replace if damaged or worn. Lubricate using 3-GP-683. Line ream bushings to EO 05-45B-2.
16F2	Main Wheel Axle Caps	V	Check for interchanging of caps and fit of pins.	Axle bearing caps are not interchangeable and must be checked for matching serial numbers or file marks. Replace torque pins.
16F3	Main Landing Gear Shock Struts	DIS	Check for wear, cracks, corrosion, freedom of operation and fluid level.	Magnaflux. Replace worn parts. Ensure freedom of operation. Fill with fluid Spec. 3-GP-26 at 3/4 inch piston extension.
16F4	Main Landing Gear Shock strut filler valves	V	Check for looseness in strut and broken locking wire.	Tighten and relock.
16F5	Moving joints and torque knees	V	Check for wear, cracks, freedom of operation and security.	Dyecheck. Replace worn parts. Ensure security and freedom of operation. Lubricate with 3-GP-683.
16F6	Under carriage Drag Leg Shock Struts	V DIS	Check for wear, distortion, operation and security.	Insure freedom of operation, security and correct fluid and air.
16F7	Landing Gear Clutch Pedal Cover	V	Check for damage, distorted, cracked hinge or worn pin and loose locking clip.	Replace worn or damaged parts, adjust locking clip.
16F8	Landing Gear Retract Slides	V	Slides not completely down in "Down" position.	Re-rig undercarriage.
16F9	Main Wheel Axles	DIS	Check for cracks, damaged threads and scored bearing surfaces.	Magnaflux. Replace worn or damaged parts.

MAIN LANDING GEAR SYSTEM (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
16F10	Main Wheel Bearings and Retainers	DIS	Check for damage, corrosion, free movement, cleanliness, whether overheated and security. Lubrication.	Replace damaged, worn or overheated parts. Maintenance and Lubrication to be carried out IAW EO 15-35-2.
16F11	Main Wheel - Tires and Tubes	DIS	Check for wear, uneven treads, cuts, blisters, or badly weather cracked.	Serviceability, cleanliness. Replace worn tires and tubes IAW. Serviceability Concept.
16F12	Main Landing Gear Tires, Creep Marks	V	Deteriorated or missing.	Replace.
16F13	Brake Shuttle Valves	V	Check for looseness, leaking, proper function, cracks, security and corrosion.	Tighten jam nuts, replace if not functioning properly. See EO 05-45B-2. Remove corrosion.
16F14	Parking brake valve and control	V	Security, proper function and leaks.	Tighten bolts, ensure proper rigging and functioning. Replace if leaking.
16F15	Pilot's brake cylinders	V	Check for looseness on attachment, leaking, loose jam nut on fork end of piston.	Tighten bolts through bushing and jam nut on fork end. Replace if leaking.
16F16	Co-pilot's brake cylinders	V	Check for looseness on attachment, leaking, loose jam nut on fork end of piston.	Tighten bolts through bushings and jam nut on fork end. Replace if leaking.
16F17	Brake discs	DIS	Security, corrosion, wear, distortion, specified clearance, freedom of movement.	Remove corrosion. Ensure security and replace worn parts.
16F18	Brake Pedal Linkage	V	Check for security, freedom of operation, wear, corrosion, distortion.	Ensure freedom of operation and security. Replace if worn or bent.

MAIN LANDING GEAR SYSTEM (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
16F19	Main Wheel Flange Mounting Bolts	V	Security, wear, torque value.	Ensure security, 12 only bolts torque value (175 in. lbs.).
16F20	Brake Housing Assemblies	V DIS	Check for security of housing to axle, corrosion, leaks at brake packing nuts, operation of pressure cylinders.	Ensure security, remove corrosion, check torque of packing nuts (180 in. lbs. gear type, 300 in. lbs. on key type). Eliminate leaks, ensure freedom of operation. Torque piston caps on key type to 75 ft. lbs.
16F21	Brake Fluid Reservoir	V	Check for security, damage, leaks, decal deterioration.	Ensure security, replace if badly damaged, rectify leaks, replace decal IAW Serviceability Concept.
16F22	Brake Lines - Flexible and solid - Clamps - Clips	V	Check for security, damage, cracks, fraying, leaks, proper routing.	Replace if damaged, ensure security and proper routing.
16F23	Brake System	OT EO	Operation Check.	Drain and flush (3-GP-26) bleed and adjust. Relock bleeding screws.
16F24	Brake Balance Cables	V DIA	Check cables for fraying by flexing throughout entire length. Check for corrosion, wear and cleanliness. Attaching links for hole elongation and link bolts for shearing.	Replace cables IAW EO 05-1-3 part 10 Replace defective attaching links and link bolts.

TAIL GEAR ASSEMBLY

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
17F1	Tail Gear Truss assembly and attachment Hinge Bolt	V	Distortion of truss tubes, worn bushings, corrosion, security, lubrication, spring attaching lug holes for elongation.	Replace if distorted or so worn as to obstruct operation, repair lugs. Lubricate with 3-GP-683.
17F2	Tail Shock Absorber	V	Cleanliness, corrosion or nicks on piston, leaks, worn bushings, inflation of strut air and oil lubrication.	Replace if damaged or leaking. Repair worn bushings. Inflate piston to 3" Lubricate with 3-GP-683. Refill with 3-GP-26.
17F3	Tail Wheel Swivel Lock Mechanism	V	Cleanliness, free operation, lock pin clearance through plate, spring tension on lock and lock pin and hole in plate for wear.	Replace if so worn as to effect operation of lock, re-rig if pin does not clear through plate, if play in locked position, replace pin.
17F4	Tail Wheel Assembly Bearings and Axle	DIS	Cleanliness, free rotation, cracks, damage, overheated bearings, corrosion, condition and security.	Replace damaged, worn or overheated parts. Maintenance and Lubrication to be carried out IAW EO 15-35-2.
17F5	Tail Wheel Tire and Tube, Dust Cover	DIS	Uneven wear, cuts, blistered or weather cracks, cleanliness.	Replace IAW Serviceability Concept.
17F6	Tail Wheel Swivel Fork	V DIS	Looseness in truss bushings and swivel plate excessive and play, cracks, damage, corrosion, worn at axle, lubrication.	Magnaflux. Repair or replace if worn. Lubricate with 3-GP-683.
17F7	Tail Wheel retract cable, Idler pulleys and sprockets and Chain Guard	V	Security, corrosion, worn teeth, freedom of operation, lubrication condition.	Replace if worn. Ensure security and freedom of movement. Lubricate with graphite MIL-G-6711.

LANDING GEAR RETRACT SYSTEM

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
18F1	Undercarriage Retract Chains and sprocket bearings	DIS	Cleanliness, corrosion, stretch and tension. Bearings for corrosion, lubrication seizing or wear.	Replace if worn (36 links not over 18-1/8"). Lubricate with Graphite MIL-G-6711. Ensure proper tension and security. Replace bearings if corroded or worn. Lubricate with 3-GP-682. Position sprocket centrally.
18F2	Under carriage Nacelle Doors	V	Freedom of operation, wear on hinges and pins, distortion of doors, security and serviceability of linkage.	Replace worn or damaged parts, lubricate hinges with 3-GP-335.
18F3	Landing Gear Slide Tubes	DIS	Cleanliness, wear, corrosion, distortion.	Replace if worn or distorted. Lubricate with Graphite MIL-G-6711.
18F4	Landing Gear Slide Assemblies	DIA	Cleanliness, wear, corrosion, freedom of operation of rollers.	Replace if worn or operation obstructed.
18F5	Landing Gear Torque Shafts	V	Wear, distortion, cracks, oversize holes at taper pins.	Replace if worn or if distortion causes whipping in operation.
18F6	Landing Gear Drive Shaft Universal Boots	V	Security, tears or damage. Flexibility.	Ensure security of ties, repair or renew if torn or deteriorated.
18F7	Torque Shaft - Universals and Taper Pins, Bushings - left and right	V	Cleanliness, worn or loose pins, oversize holes, bushings worn, and lubrication.	Replace if worn or distortion causes any whip in torque shaft. Lubricate with 3-GP-682.
18F8	Landing Gear Drive Shaft Bearings	V	Looseness in hangers, worn bearings, noisy in operation, security, lubrication.	Replace if worn or noisy, ensure security, lubricate with 3-GP-682.
18F9	Landing Gear Motor Gear Box	DIS	Cleanliness, proper level of lubricant, security and leaking grease. Check wear of gear teeth.	Replace gear if noisy, grinding in operation or if teeth are worn more than 1/32". Lubricate with 3-GP-360 summer, 3-GP-390 winter. Security of mounting, reseat.

LANDING GEAR RETRACT SYSTEM

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
18N10	Landing Gear Motor	V	Cleanliness, security to gear box, overheating or noisy in operation.	Replace if noisy or overheating.
18F11	Landing Gear Motor - Front Hanger Bracket	V	Security, distortion, looseness and locking of attachment bolts.	Repair and ensure security.
18F12	Landing Gear Clutch	V	Cleanliness, slipping in operation, security.	Adjust clutch setting IAW EO 05-45B-2.
18F13	Landing Gear Clutch Housing - Retainer Ring	V	Security, cleanliness, retainer ring properly installed.	Ensure security, install retainer ring in groove.
18N14	Tail Wheel Slide Tube	V	Cleanliness, distortion, worn, chatter in operation, corrosion, lubrication.	Replace if worn or damaged, lubricate with powdered Graphite MIL-G-6711.
18F15	Tail Wheel Slide and Shock Cord	V	Cleanliness, corrosion and wear.	Repair if worn or operation obstructed Replace deteriorated shock cord.
18F16	Tail Wheel Retract Mechanism - Chain, Cable Pulleys	V DIA	Cleanliness, check cables for fraying by flexing over length, check pulleys for wear, chains for stretched links or corrosion. Rigging and tension, security and lubrication.	Replace worn or damaged parts, rig for proper cable tension, ensure security. Lubricate with 3-GP-683. and graphite MIL-G-6711. Ensure aluminum alloy shear bolt AN30D6 is used. Replace cable IAW EO 05-1-3 Pt 10.
18F17	Tail Wheel Doors	V	Freedom of operation, hinges and pins for wear, distortion or damage to doors for fit, linkage for proper rigging and security.	Replace or repair worn or damaged parts. Lubricate with 3-GP-335. Ensure proper rigging.

LANDING GEAR RETRACT SYSTEM (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
18F18	Landing Gear Hand Crank	V	Cleanliness, worn sprockets, excessive play, loose knob, defective spring, fit on shaft, corrosion and security.	Replace sprockets if crank slips when operated. Replace defective parts, remove corrosion, ensure security.
18F19	Landing Gear Hand Crank Chain	V	Corrosion, loose or stretched links, tension.	Replace if links worn or stretched, remove corrosion, ensure proper tension.
18F20	Undercarriage Clutch Release cable, housing and stop. Replace arm.	V	Housing for breaks at reduction gear case, cable for wear. Security of stop. Lubrication.	Ensure security, tighten lock nut. Ensure stop installation to EO 05-45B-5/67. Replace defective cable and/or housing. Lubricate release arm with 3-GP-335.
18N21	Undercarriage	OT	Operation.	Retraction and extension by manual and electrical means. Main and tail slide synchronization (Maximum allowable difference 3/16 inch) Visible and audible warning devices for correct functioning.

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Heating System</u>				
2F1	Defroster - Flexible hoses	V	Cracks, leaks, holes, tears.	Replace or repair damaged hose.
2F2	Astrodome Defroster Outlet	V	Cracks, damage	Replace or repair.
2F3	Defroster Outlets	V	Cracks, dents, damage, obstructions.	Replace or repair. Remove obstructions.
2F4	Heat Outlets	V	Function, security.	Ensure security. Ensure proper operation.
2F5	Exhaust Air Vents	V	Check for free flow. Check operation.	Clear all restrictions and ensure freedom of movement.
2F6	Cockpit Controls	V ETE	Wear, free and full operation security, routing.	Adjust or replace worn parts, lubricate flex controls with powdered graphite MIL-G-6711. See EO 05-45B-2. Ensure security and routing. Apply external air test.
2F7	Hot Air Conductor Tubes and Clamps	V	Breaks, cracks, damage, security. Check for damage from battery acid and chafing.	Repair damaged sections or replace. Ensure security and freedom from chafing.
<u>Ventilating System</u>				
2F8	Cold Air Inlets	V	Restrictions, cracks, security.	Free all restrictions. Repair damaged inlets. Ensure security.
2F9	Cold Air Conductor Tubes and Clamps	V	Breaks, cracks, security, Check for damage by battery acid and chafing.	Repair damaged sections. Ensure security and freedom from chafing.

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Ventilating System</u>				
2F10	Distributor Boxes	V	Wear, damage and operation.	Repair valve. Ensure free operation.
2F11	Cabin Exhaust Air Vents	V	Restriction, operation.	Clear all restrictions.
2F12	Adjustable Outlets	V	Wear, damage and operation.	Ensure free operation and clear all restrictions. See EO 05-45B-2.
<u>De-Icer System</u>				
2F13	De-icer Boots - Main and Tail	V	Cleanliness, security. Inspect for tears, punctures and deterioration.	Clean boots with soapy water and make sure they are free of oil and grease. Ensure condition and security. Repair IAW EO 05-45B-2, Part 4, and EO 05-1-2AA. Coat all boots with conductive coating compound (B. F. Goodrich #A-56-B)
2F14	Pipes and connecting hoses	V	Wear, damage, corrosion fittings, clamps and security.	Ensure security of clamps. Replace defective lines IAW Serviceability Concept.
2F15	Engine Separators	DIS	Cleanliness, damage and security.	Disassemble, clean filter, ensure security.
2F16	De-icer Oil Separator	DIS	Cleanliness, damage and security.	Disassemble, clean filter and install ensuring security.
2F17	De-icer Check Valves	V OT	Operation and cleanliness	Ensure correct installation and operation. Ensure security of connections.
2F18	Distributor Valve	V	Selector arm travel, control for security and wear, routing of control, oil fouling.	Ensure proper and full travel. Ensure security. Remove and clean if oil is found in distributor.

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>De-icer System</u>				
2F19	De-Icer System	OT	Operation, leaks, sequence timing and pressure.	Adjust pressure, replace distributor if timing incorrect. Ensure correct sequence. Ensure security.
<u>Fire Extinguisher, Engine</u>				
2F20	Engine Fire Extinguisher	DIA	Contents, security.	Measure weight of extinguisher contents by removing IAW EO 05-45B-2 Part 4, and weighing. Replace as required. Ensure security.
2F21	Engine Selector	V	Correct Operation	Test selector and ensure correct operation and free movement.
2F22	Control Cable	DIA	Wear, free movement, damage to cable at handle.	Replace damaged cable. Ensure security at swivel joints.
2F23	Piping	V	Wear, damage and security.	Replace defective piping IAW Serviceability Concept. Ensure security.
2F24	Engine Piping	V	Wear, damage and security.	Replace defective piping IAW Serviceability Concept. Ensure security. Clear obstructions from jets.
2F25	Fire Extinguisher Warning Disc	V	Security and damage.	Replace damaged or missing discs. Ensure security.
2F26	Hand Fire Extinguishers	V	Contents and damage.	Ensure full contents. Replace damaged extinguisher.
2F27	Extinguisher brackets	V	Cracks or other damage and security	Ensure security. Ensure clip is serviceable. Repair minor defects or replace brackets.

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Fire Detection</u>				
2N28	Thermocouples	V	Cleanliness, security, heat check.	Clean, ensure security, replace faulty units.
2N29	Relay Panel Assembly	V OT	Cleanliness, deteriorated shock mounts, security, freedom from hydraulic fluid. Operation	Ensure cleanliness, security. Replace defective units, replace deteriorated shock mounts IAW Serviceability Concept.
2F30	Wiring	V	All wiring for wear or damage, security, loose connections, defective connectors.	Replace defective wires. Ensure security of wiring. Tighten loose connections. Ensure resistance per EO 40-95AA-2.
2N31	Indicators and Switches	V	Function and security.	Replace defective switches and indicator lamps. Ensure security.
<u>Windscreen Wiper</u>				
2N32	Windscreen Motor	DIS	Cleanliness, security and operation	Ensure serviceability to EO 05-45B-2 and security. Free operation and free movement.
2N33	Windscreen Wiper - Blades	V	Corrosion, deterioration, damage, security.	Replace damaged or deteriorated blades. Ensure proper operation and security. Minor corrosion acceptable IAW Serviceability Concept. Note: DO NOT OPERATE ON DRY GLASS.
2F34	Actuating Rods	V	Cracks, damage	Replace damaged rods. See EO 05-45B-2.
2N35	Alignment Rods	V	Adjust, security and condition.	Repair damaged rod. Check operation. Ensure security and condition. See EO 05-45B-2

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Windscreen Wiper</u>				
2F36	Flexible Drive	DIS	Cleanliness, lubrication.	Replace worn or damaged drives. Lubricate with graphite MIL-G-6711.
2N37	Converter Assembly	DIS	Wear, Lubrication and operation.	Replace defective assembly. Ensure correct operation. Grease with 3-GP-683. See EO 05-45B-2.
2N38	Switch	V OT	Connections and security.	Ensure security and proper connections. Replace faulty switch.
<u>Miscellaneous</u>				
2F39	Flare Pistol, Stowage and Cartridge Stowage	V	Wear, damage and security.	Repair defective stowage and ensure security.
2F40	Crash Axe and Stowage	V	Wear, damage and security.	Repair defective stowage, ensure security.
2F41	Equipment Stowage-Fasteners, Straps and Cords	V	Wear, deterioration and security.	Replace defective fasteners, straps and cords. Ensure security.
<u>Anti-Icer System</u>				
2F42	Filter	DIS S	Cleanliness and damage	Ensure cleanliness. Replace if damaged.
2F43	Pipelines and Fittings	V	Lines for damage, leaks, security; Fittings for security tightness.	Replace damaged lines or fittings. Ensure security.
2F44	Anti-icer Pump	V OT	Security, leaks, Noisy operation. Wire locking of plug.	Ensure security. Replace if excessively noisy.

UTILITIES

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Anti-Icer System</u>				
2F45	Check valves	V	Security, leaks, correct setting.	Ensure security, correct flow time, and security of connections.

POWER PLANT

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F1	Engine Cowlings, Wrapper Sheets and Support Brackets.	V DIA	Cracks, dents, loose rivets, damaged Dzus fasteners, skin for corrosion and distortion. Check cowl for drain holes (lower section). Anti-torque plates for wear and security.	Remove cowls and repair cracks, dents, replace damaged rivets and Dzus fasteners. Renew or patch torn skin surfaces and brackets. Ensure cowl drain holes are clear. Replace anti-torque plates if worn. Ensure security.
3F2	Engine Cowl Bondings	V	Security and broken bondings.	Replace broken bondings.
3F3	Propellers	V	Check for leakage, corrosion, leading edges for nicks, anti-icer shoes for wear, cuts, propeller dome and distributor valve for dents, sludge and corrosion, high and low pitch stop rings for settings. Check anti-icer slinger ring for cracks and free flow. Check dome seal.	Dress leading edges. Remove feed shoes if damaged and do not replace. Remove sludge and corrosion from dome and distributor valve IAW EO 05-45B-7A. Ensure security of high and low pitch stop rings. Check blade track IAW 15-30-2. Renew distributor assembly if oil pressure is low or distributor dented. Repair cracks in slinger ring. Ensure free flow at nozzle. Replace dome seal. Torque retaining nut to 720 ft. lbs.
3F4	Engine - R985 AN-14B	V	Nose section for security and leaks, rocker boxes for leaks. Push rod covers and packing nuts for dents and leaks. Inter-cylinder drain lines for security, hose and clamps for condition. Centre section and rear crank case for security and leaks.	Replace rocker box gaskets and resurface covers if oil leaks are present. Replace defective cylinder drain lines, hoses and clamps. Tighten push rod packing nuts and replace packing if oil leaks present.

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F4	Engine - R985 AN-14B - (Cont'd)	V	Accessory section for leaks at gaskets. Check for metal particles in sump and oil screen. Check security of oil sump. Check for leaks. Check for clearance at sump baffles. Oil strainer for cleanliness.	Replace leaking gaskets at accessory section. If metal particles present, replace engine IAW EO 10A-10AA-2. Remove any debris from engine, such as rags, wire, nuts, bolts, etc. Do motostat check IAW EO 10A-1-2Q. Ensure security of sump plugs and wire lock. Ensure clearance at sump baffles. Clean oil strainer.
3F5	Crank Shaft	V DIA	Check for cracks in threaded area. Check thrust nut for cracks and shaft for corrosion and pitting.	Check crankshaft to EO 10A-10AA-2A. Check L14 entry. Reinstall propeller and components and ensure security. Torque thrust nut to EO 10A-10AA-2A.
3F6	Fuel Filters	V DIA	Cleanliness and security.	Remove and clean screen. Ensure security and locking.
3F7	Engine Mount	V DIA	Security, corrosion, bowing and cracks. Lord mounts for deterioration, attachment bolts for evidence of magnaflux. Check for broken mount bondings.	Remove corrosion. Renew Lord mounts if deteriorated IAW EO 15-1-5/2. Replace bolts not magnafluxed. Torque Lord mount bolts to 37 to 41 ft. lbs. Renew broken engine mount bondings.
3F8	Cylinders	V	Security of cylinder and hold down studs. Check for leaks and broken fins. Check for cylinder head separation. Check for broken studs and burning at exhaust ports.	Ensure security and locking. Dress broken fins. Replace cylinder if evidence of separation. Torque hold down nuts to 300 to 350 in. lbs.
3F9	Cylinder Baffles	V	Security, cracks, damaged springs, chafing. Check for grommets and defective rivets.	Repair cracks. Replace defective baffles. Reposition if chafing. Replace defective rivets IAW Serviceability Concept. Replace necessary grommets.

EO 05-45E-7B
Part 3

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F10	Engine Cowl Brackets	V	Wear, damage and security.	Replace if unserviceable.
3F11	Induction System	V	Security, damaged or worn induction pipes and packing. Check for leaks.	Replace induction pipes if worn or badly dented. Replace packing if leaking. Ensure security at crank-case and cylinders.
3F12	Exhaust System	V DIA DIS	Check for security, burning, cracks and leaks, tail pipe for cracks and burning. Pressure test intensifier tube. Check cabin heat casting for cracks, wear and attaching bolts for wear. Check for worn tail pipe brackets, torn asbestos at tail pipe shroud.	Remove for inspection. Replace burnt adaptors, close up joints in heater muff. Weld and repair cracks and worn spots. Renew defective heater muff clamps. Renew unserviceable tail pipe brackets. Ensure security attachment stock. Repair or replace defective intensifier tubes, ensure deflector rings fitted on assembly. Secure asbestos at tail pipe shroud.
3N13	Engine Accessories (General)	V OT	Check all accessories for operation, security, oil or fuel leakage. Check hoses and pipes and fittings for deterioration, wear and leaks.	Replace seals and gaskets if leaks are evident. Operation check during run-up procedure, make running adjustments IAW EO 05-45B-1. Replace defective hoses and piping IAW Serviceability Concept.
3N14	Carburetor	V EO	Check for security and leaks. Locking and operation of throttle and mixture controls. Check travel of controls. Check carburetor body for separation.	Ensure security of hoses and fittings. Ensure no obstructions at mixture and throttle controls. Ensure operation during run-up. Remove screen and strainer and clean. Torque screen plug to 210-240 in. lbs.
3F15	Fuel Pump	V	Cleanliness, security and leakage.	Ensure security. Ensure pump drain is clear. If leaking, ensure proper torque values.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F16	Governor	V	Cleanliness and security. Operation and travel of C. S. U. control, pulleys and cable for wear.	Ensure security of C. S. U. and operation of control.
3F17	Vacuum Pump	V	Operation and security.	Ensure security.
3F18	Generator	V	Cleanliness and security. Inspect for oil leaks, air vents for obstructions.	Remove generator and replace adaptor seal if leakage apparent. Ensure security. Clear air vent.
3F19	Starters	V	Damage, cleanliness and security.	Ensure security.
3N20	Feathering Pumps	V	Security and cleanliness. Condition of lines and fittings. Check for leaks.	Ensure security. Clean motor vent. Replace damaged lines IAW Serviceability Concept.
3F21	Plessy Pump	V	Ensure security and cleanliness. Check for damaged and worn lines and fittings.	Ensure security. Remove and clean filter. Replace damaged lines IAW Serviceability Concept.
3N22	Magnetos	V OT	Security of magnetos, harness and leads. Locking devices and air vents clear.	Ensure security. Clear air vents. Check for live magnetos and magneto drop during run-up.
3F23	Engine Primer Pump	V OT	Security, operation and leaks.	Ensure security. Replace leaking seal.
3F24	Wobble Pumps	V OT	Operation and security. Leaks at packing gland nuts. Check lines for leaks and chafing. Check operation of linkage.	Renew leaking packing. Ensure pump security. Check lines for serviceability and replace IAW Serviceability Concept. Adjust and repair defective linkage. Ensure pressure setting per EO 05-45B-2.

POWER PLANT

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F25	Wing Fuel Tanks	V DIS	Security, leaks, abrasion and corrosion. Check securing devices and supports for condition, check piping for leaks and wear. and chafing. Condition of bonding.	Remove covers and tanks. Remove slushing compound from tanks, repair abraded areas, clean corroded areas. Pressure test and reapply slushing compound. Ensure proper tension of straps and condition of felt pads. Refinish tank. Ensure security of bonding. Replace cracked scuppers and deteriorated filler cap washers. Replace hoses and piping, IAW Serviceability Concept. Ensure tank vents are secure, hose clamps free from chafing.
3F26	Oil Coolers	V	Security and damage. Hoses and clamps for serviceability. Cleanliness and condition of core.	Replace unserviceable hoses and clamps IAW Serviceability Concept. Ensure cleanliness and security.
3F27	Oil Shut-off Valve	V	Operation, security and leaks. Check function of control.	Ensure security and operation. Check for free flow at drain valve.
3F28	Oil "Y" Drain Valve	V	Security of installation. Check for leaks.	Ensure security. Replace if leaking.
3F29	Oil Tanks	V DIS	Security, corrosion and distortion.	Remove covers and tanks, drain and flush. Repair distorted areas. Remove corrosion, ensure tank vent lines, hoses and clamps are secure. Replace broken bondings. Ensure tank, straps and filler cap are secure.
3F30	Spark Plugs	V DIA	Check security.	Install new plugs. Ensure security and torque to 300 - 360 in. lbs. Plug type C26S.

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F31	Anti-Icer Tank	V DIS	Security, corrosion and check for leaks. Hold down straps for condition.	Remove, steam and clean. Check and remove any corrosion. Ensure security of tank, straps and filler cap. Lubricate drain plug threads with anti-seize lubricant MIL-L-6032 RCAF Ref 34A/167.
3N32	Anti-Icer Pump	V OT	Security and leakage. Operational Test. Check condition and chafing of lines.	Ensure security and proper operation. Ensure no leakage of fluid into motor. Remove filter and clean. Replace defective lines IAW Serviceability Concept.
3F33	Crankcase Banjo Fittings	V	Check for oil leakage and loose fittings.	Replace gaskets and tighten loose fittings.
3N34	Engine Controls - Throttle, Mixture, Manifold Heat, Propellers, Governor, Oil Bypass, Cowl Flaps	V OT EO	Check operation and travel. Controls for routing, slippage and security, fairleads for cracks. Check for broken control knobs on pedestal.	Run-up. Replace unserviceable controls. Ensure security. Remove all oil and grease. Lubricate bearings 3-GP-683. Re-rig if required. Replace broken fairleads. Replace broken knobs.
3F35	Carburetor, Hot and Cold Air System	V DIS	Security of hot and cold air ducts. Intake ducts free of obstructions. Cracks and distortion of ducts.	Repair cracks. Ensure security of ducts, clamps, rivets and air scoop assemblies.
3F36	Engine Primer Lines	V	Check for leaks, kinked lines and security. Check distributor block for security. Check orifices.	Ensure security and proper routing. Replace kinked lines. Check for leaks by operating primer pump. Free clogged orifices.

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3N37	Oil System	V EO OT	Lines, hoses and clamps from tank to "Y" drain and engine, also dilution lines for damage. Check operation of bypass valve. Security of temperature bulb. Check following hoses ahead of firewall for conformance with Spec. MIL-H-7938 (flame resistant). Engine oil return line. Both oil cooler lines.	Renew damaged lines IAW Serviceability Concept. Ensure security of lines, hoses and clamps. Ensure no leakage and proper routing. Ensure operation of oil bypass valve. Ensure operation of oil dilution solenoids. Ensure oil temperature bulb operation. Ensure oil shutter control operation. Replace all hoses not conforming to Spec. MIL-H-7938.
3N38	Propeller Feathering System	OT V ETE	Security of adaptor. Lines and fittings for leaks and routing. Operation of complete system.	Ensure security. Operate system for proper function; if cut-out switch unserviceable, replace adaptor.
3N39	Fuel Selector Valve	OT	Security and operation, leaks and lines for wear.	Ensure security and operation. Remove and repair leaks.
3N40	Fuel Cross Feed Valve	OT	Security and operation, leaks and lines for wear.	Ensure security and operation. Remove and repair leaks.
3F41	Fuel Check Valves	OT	Operation.	Repair unserviceable valves, ensure mounted in correct position.
3F42	Engine Breather System	V	Breather lines and hose connections for wear and security.	Ensure security and routing to crankcase. Replace defective piping IAW Serviceability Concept.

POWER PLANT (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
3F43	Cowl Support Ring	V	Worn and frayed webbing, cracks and distortion. Defective rivets at brackets.	Renew webbing, repair cracks. Replace rivets.
3F44	Engine Inner Cowl	V	Tears, cracks, burning from exhaust. Torn rubber peripheral seal. Shroud attachment fittings.	Repair cracks and tears. Replace or repair rubber peripheral seal IAW EO 05-45B-2, Pt 5. Repair shroud attachment.

INSTRUMENTS

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4F1	Instrument Panel Altimeters Compass Gyrosyn - C2 Indicator Compass Repeater Flap and Elevator Trim Tab Indicators Compass B16 Compass Gyrosyn - Master Indicator Gauge, Manifold Pressure Gauge, Unit Engine Combination Gauge, Suction Gauge, De-Icer Gauge, Fuel Contents Indicators, Air Speed Indicator, Turnand Bank (Air Driven) Indicator, Turn and Bank (Electrical) Indicator Directional (Gyro Air Driven) Indicator, Artificial Horizon, Electrical Indicator, Artificial Horizon, Air Driven Indicators, Tachometer Indicators, Rate of Climb Thermometers, Cylinder Temperature Thermometers, Carburetor Temperature Thermometers, Outside Air Air Position Indicator Air Mileage Unit Instrument, Landing Indicator Radio Compass Indicators	ETE DIA	Bench check for calibration. Discoloration. Check condition of instrument panel anti-vibration mounts.	Instrument panel to be removed with instruments. Instruments to be bench checked IAW applicable Engineering Orders., replace instruments which are not within calibration limits. Replace instrument if dial markings discolored, non-luminous or illegible. Renew illegible or damaged range and creep markings IAW EO 20-1-2A. Check security of bezel glass. Replace illegible decals IAW Service-ability Concept. Replace all anti-vibration mounts on instrument panel should deterioration be evident in any one mount to ensure secure and level mounting.

INSTRUMENTS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4F2	Instrument Panel	V	Check for cleanliness, condition and security.	Secure panel and ensure level. Clean and repair.
4N3	Gauge, Unit Engine Combination a. Oil pressure gauges b. Oil temperature indicator c. Fuel pressure indicator	EO EO EO	Functional check. Functional check. Functional check.	IAW EO 05-45B-2. IAW EO 05-45B-2. IAW EO 05-45B-2.
4N4	Cylinder Temperature	EO	Functional check.	IAW EO 05-45B-2.
4N5	Fuel Contents Gauge	EO	Functional check.	IAW EO 05-45B-2.
4N6	Carburetor Temperatures	EO	Functional check.	IAW EO 05-45B-2.
4N7	RPM Indicator	EO	Functional check.	IAW EO 05-45B-2.
4N8	Manifold Pressure Indicator	EO	Functional check.	IAW EO 05-45B-2. Replace if barometric pressure does not agree.
4N9	Vacuum Gauge	EO	Functional check.	IAW EO 05-45B-2.
4N10	Flap and Elevator Trim Tab Indicators	EO	Functional check.	IAW EO 05-45B-2.
4N11	Gyro Horizon (Air Driven)	EO	Functional check.	IAW EO 05-45B-2.
4N12	Gyro Directional (Air Driven)	EO	Functional check.	IAW EO 05-45B-2.
4N13	Turn and Bank Indicator (Air Driven)	EO	Functional check.	IAW EO 05-45B-2. Deflect panel for pointer movement.
4N14	Gauge Pressure De-Icer	OT	Functional check and security.	Ensure security IAW EO 05-45B-2.

INSTRUMENTS

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4N15	Electrical Turn and Bank Indicator	OT	Functional Check.	Adjust ball for center to aircraft axis. Deflect panel for pointer movement.
4N16	Electrical Horizon Indicator	OT	Functional check. Erector warning system for function.	Bezel glass for normal heating; bezel glass must heat during operation. Replace defective erector light.
4N17	Electrical Horizon Power Control Unit and Supply Cable	OT DIS	Operation, anti-vibration mounts for condition. Security of connections and plugs.	Tighten loose connections. Replace shock mounts IAW Serviceability Concept.
4N18	Manifold Pressure Gauge Lines	V	Wear and cleanliness.	Disconnect lines at instrument and blow back to engine. Replace IAW Serviceability Concept.
4N19	C2 Gyrosyn Compass System	OT	Functional Check.	IAW EO 20-25DB-2. Check cable for floating ground.
4N20	C2 Indicator	OT	Functional check.	IAW EO 05-45B-2.
4N21	C12 Master Indicator	OT	Functional check. Security of connections.	IAW EO 05-45B-2. Ensure security of connections.
4N22	Compass Repeaters	OT	Synchronization and security.	IAW EO 05-45B-2. Ensure security of connections.
4N23	Inverter F16	DIS	Bench check voltage and frequency. Anti-vibration mounts for deterioration and security.	Adjust voltage and frequency IAW EO 40-30 JA-2. Anti-vibration mounts IAW Serviceability Concept and secure all loose connections.
4N24	Flux - Amplifier	DIS	Bench check operating electrical voltages, security of connections, connection of ground wire to amplifier (NOT to mount). Proper fuse. Shock mounts for deterioration.	Bench check IAW EO 20-25DB-2. Insert proper fuse. Secure loose connections. Connect ground wire to amplifier case. Replace shock mounts IAW Serviceability Concept.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4N25	Flux Valve	DIS	Bench check, fluid leaks, security and corrosion.	Continuity check IAW EO 20-25DDB-2, page 41. Bench check IAW EO 20-25DDB-2. Secure connections. Ensure that non-magnetic screws only are used. Remove corrosion IAW Serviceability Concept.
4N26	Flux Valve Compensator	DIS	Bench check. Security and seal of assembly screws.	IAW EO 20-25DDB-2. Ensure security and use of non-magnetic screws. Ensure wax seal in place.
4N27	Servo Amplifier	DIS	Bench check. Security of connections. Shock mounts for deterioration.	IAW EO 20-25DDB-2. Secure loose connections. Replace shock mounts IAW Serviceability Concept.
4F28	Junction Box	V	Electrical connections for security. Insulation of lugs. Cleanliness.	Secure all loose connections. Ensure that lugs are not insulated by extruded tubing and that shielding is not grounded. Clean junction box.
4N29	Air Position Indicator	OT	Function and security. Electrical cables for security.	IAW EO 05-45B-2. Ensure security.
4N30	Air Mileage Unit	OT	Operation. Security. Flex hose for wear and security. Flex drive for visual damage. Anti-vibration mounts for deterioration.	Tighten loose connections. Replace anti-vibration mounts IAW Serviceability Concept. Ensure security.
4N31	Driftmeter	OT	Operation and security. Check spare bulb for operation.	Ensure security. Replace defective bulb.
4F32	Altimeters	V	Operation.	Set to station pressure.
4F33	B16 Compass Bracket	V	Security. Check clearance with flight panel.	Install spacers if clearance insufficient.

INSTRUMENTS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4F34	Gauge, Anti-icing Tank	OT	Function check and security.	Ensure security.
4F35	Drift Recorder Bracket	V	Security and damage.	Ensure security, repair damage IAW Serviceability Concept.
4F36	Identifying Decals and Lettering	V	Installation, legibility and security.	Renew illegible decals and placards, IAW Serviceability Concept. Ensure security of placards.
4F37	Navigators Panels - Cabin	V	Instrument lines for security and wear. Shock mounts for deterioration.	Replace lines and shock mounts IAW Serviceability Concept.
4F38	Hoses and Clamps - Instrument Lines	V	Wear, damage and security.	Replace IAW Serviceability Concept.
4F39	Central Air Filter	DIS	Damage, security and cleanliness. Bracket for cracks.	Clean filter, replace cartridge if damaged. Repair defective bracket.
4F40	Clocks	V	Operation.	Wind, set, check for accuracy.
4N41	Vacuum Check Valves	OT DIS	Bench check, security of clamps.	Service or replace if defective. Clean and ensure proper direction of arrow.
4F42	Vacuum Relief Valves	DIS	Bench check, security of lines.	Replace valve if defective. Ensure security.
4F43	Tachometer - Generator	OT DIS	Bench check, operation, security and cleanliness. Check connector inserts for cracks.	Tighten loose connections, ensure security. Replace damaged inserts.
4F44	Control Valve in Vacuum Line of Turn and Bank Indicator.	OT DIS	Bench check. Security and operation.	Replace if defective. Ensure security.

INSTRUMENTS

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
4F45	Pitot and Static Lines	V	Cracks, dents, chafing, corrosion, security and leaks. Freedom from obstruction and moisture in drains. Static vents for obstructions.	Replace damaged lines and remove corrosion IAW Serviceability Concept. Ensure security of couplings. Remove moisture by disconnecting lines at instruments and blowing out with air. Remove obstructions from vents. Safety drain cock.
4F46	Pitot Masts and Head	V	Alignment to center line of aircraft, security and damage.	Secure, align, replace if defective.
4F47	Thermo Couple Leads	DIA	Security. Firewall blocks for defects. Resistance of leads.	Inspect after spark plug change. Remove leads from firewall blocks, clean with carbon tetrachloride. Ensure security and operation. Renew defective firewall blocks. Replace leads if resistance not 8 ohms.
4F48	Bulb - Thermometer, Air Temperature	OT	Security, cleanliness and operation.	Replace if defective. Tighten connections. Clean bulb.
4F49	Drift Recorder	V	Function, security and alignment	Alignment. Replace if defective.
4F50	Bulb Thermometer Oil Temperature	OT	Security, cleanliness and operation.	Replace if defective. Tighten connections.
4F51	Bulb carburettor Temperature	OT	Security, cleanliness and operation.	Replace if defective. Tighten connections.
4F52	Pitot Static Systems and Instruments.	OT	Functional check.	Check operation IAW EO 20-1-2K.

ELECTRICAL SYSTEMS

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Battery System</u>				
5F1	Batteries	DIA V	Case, terminals, manifold and capacity.	Remove battery and check specific gravity level of electrolyte and cell voltage IAW EO 40-5A-2.
5F2	Acid Jar and Sponge	DIS	Cleanliness.	Clean jar, renew sponge.
5F3	Acid Drain Hose and Jar Cap	V	Cap for cracks. Hose for cleanliness.	Ensure free passage through hose.
5F4	Battery Relays	OT V	Safety, corrosion and operation.	Minor corrosion permissible IAW Serviceability Concept. Tighten loose connections.
5N5	Switches	V OT	Operation.	Change if defective
5N6	External Power, Plug, Wiring and Relay	V OT	Pitting, cleanliness, chafed wiring and operation.	Minor pitting due to burning permissible. Ensure cleanliness. Protect wires where chafed. Replace defective relay.
5F7	Main Power Post	V	Wiring, safety.	Tighten loose terminals.
<u>Starter System</u>				
5N8	Starters	DIA V OT	Brushes and commutator for excessive wear, safety wiring.	IAW EO 05-45B-2 Part 7.
5F9	Cannon Plugs and Leads	V	Safety and wear.	Tighten and lockwire, replace frayed braiding IAW Serviceability Concept. Ensure security.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
5N10	Starter Relays	V OT	Corrosion and operation	Minor corrosion permissible IAW Serviceability Concept and operation IAW EO 40-40-2B. Replace defective relay.
5N11	Starter Switches	V OT	Operation. Security.	Replace if intermittent.
<u>Ignition System</u>				
5F12	Spark Plug Harness	DIA ETE	B. G. Test.	Replace any leads showing leakage. Ensure bonding.
5N13	Ignition Switches	OT EO	Operation. Security.	Replace if intermittent.
5F14	Low Tension Leads	DIA ETE	Continuity and insulation resistance.	Ensure continuity of leads. Insulation to meet MIL-W-5086 Replace defective leads.
5F15	Induction Vibrators	V OT	Operation security.	Replace if defective.
5F16	Ignition Braiding	DIA	Broken or frayed braiding. Distorted elbows and defective tips.	Repair if broken or frayed. Replace damaged elbows and tips. Ensure bonding.
<u>Generator System</u>				
5N17	Generators	DIA V OT	Brushes and commutator for wear. Security, external corrosion and damage.	IAW EO 05-45B-2. Minor corrosion permissible IAW Serviceability Concept. Ensure security.
5F18	Generator Leads	V	Wear and security.	Replace frayed braiding IAW Serviceability Concept. Ensure security.

ELECTRICAL SYSTEMS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Generator System</u>				
5F19	Voltage Regulators	V EO	Setting and equalization.	Change regulators if unable to adjust.
5N20	Reverse Current Cut-out Relay	OT V	Operation and security.	Replace if defective.
5N22	Generator Failure Warning Light Relay	V EO	Operation, cleanliness, security of wiring.	Secure wiring. Replace if defective.
5N23	Generator Failure Warning Lights	V EO	Operation of lights, security of socket, and wiring.	Resecure sockets and wiring. Replace defective bulbs.
5F24	Voltage Regulator Bases	V	Ground return wire for security. Base for corrosion. Shockmounts.	Resecure wire, clean base. Replace shockmounts IAW Serviceability Concept.
5N25	Radio Interference Filter	EO V	Effectiveness of engine generator filter.	To be done on radio engine run-up check. Replace defective filters.
5N26	Voltmeters	EO V	Accuracy and operation.	Compare with calibrated meters. Replace if defective.
5N27	Generator Switches	EO V	Operation, security.	IAW EO 05-45B-2. Replace defective switches.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Interior Lighting</u>				
5N29	Cockpit and Radio Panel Lights	OT V	Lights for proper operation. Red plastic covers for security.	Ensure proper operation. Replace defective bulbs. Ensure security of red plastic shields.
5N30	Extension Light	OT V	Operation and security. Worn extension cord.	Replace defective assembly. Insure proper operation and security.
5N31	"ON" and "OFF" switch	OT V	Operation. Security.	Replace defective switch.
5N32	Instrument Lights	OT V	Operation of all instrument lights including compass lights.	Replace faulty fluorescent lights. Ensure operation and security of light fixtures. Replace defective lights.
5N33	Cabin and Baggage Compt. Lights	OT V	Light fixtures, lenses, lamps, connections and rheostats for operation.	Ensure operation and security of all light fixture. Replace defective lamps, lenses and rheostats. Ensure connections clean and secure.
5N34	Spare Bulbs	V	Condition of bulbs, including instrument bulbs, Stowage for security.	Replace defective or missing bulbs. Ensure security of stowage.
<u>Exterior Lighting</u>				
5N35	Exterior Lighting	OT	Outside lights for operation. Colored lenses for damage, security and corrosion.	Ensure all lights are secure and operating. Replace cracked or damaged lenses. Ensure proper installation of colored lenses. Replace defective seals and light fixtures.
5N36	Anti-Collision Light	V OT	Operation, Security, Damage and Corrosion	Ensure Security Correct Operation Replace Damaged and Defective Parts.

ELECTRICAL SYSTEMS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
5N37	Flasher Unit	OT V	Operation and security, operation of flashing and steady circuits.	Replace defective unit. Ensure correct steady and flashing circuits.
5N38	Landing Lights	OT	Operation, security, proper travel.	Ensure security of bulb and mounting ring. Replace if defective.
5N39	Landing Light Motor	OT	Operation, security.	Replace if defective. Resecure.
5N40	Toggle Switches	OT V	Connection and security of all lighting system switches.	Ensure security of connections. Replace faulty switches.
5F41	Wiring	V	Chafed, burned or bare wires. Cannon plugs for cracked inserts.	Ensure proper connection and security of installations, support all chafed areas. Splice in replacements for burnt wires. Replace defective connectors.
<u>Fuel Quantity System</u>				
5F42	Fuel Contents Transmitter	DIA V	Cleanliness, corrosion and security.	Remove corrosion, replace defective assembly.
5F43	Fuel Contents Transmitter	OT	Calibration.	Ensure accurate calibration and function IAW EO 05-45B-2, Part 5.
5F44	Wiring	V	Wiring over fuel cells for chafing, installation and security.	Ensure security to prevent chafing. Protect with insulation tubing and support.
5N45	Fuel Gauge Contents Selector	OT V	Operation, security, cleanliness.	Check operation and ensure that handle pointer and position of switch agree. Replace defective selector. See EO 05-45B-2.

ELECTRICAL SYSTEMS (Cont'd)

EO 05-45B-7B
Part 3

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Flap System</u>				
5N46	Flap Motor	V DIA OT	Operation, security.	Replace if defective.
5F47	Leads	V	Cleanliness and security.	Ensure clean leads and security of contacts.
5N48	Flap Motor Limit Switches	OT V	Function and setting.	Ensure proper setting and function using 28 volt power supply IAW EO 05-45B-2.
5N49	Flap Dynamic Brake Relay	OT V	Operation and security.	Replace if defective.
5N50	Flap Transmitter	OT V	Security and operation, electrical connections and mounting.	Ensure security and operation. Check electrical connections and mountings IAW EO 05-45B-2.
5N51	Flap Selector Switch	OT V	Operation, security of switch and connections.	Ensure proper operation and security. Replace defective switch. IAW EO 05-45B-2.
<u>Landing Gear System</u>				
5N52	Motor	DIA OT V	Operation. Security.	Replace if defective. Ensure proper operation and security.
5F53	Leads	V	Cleanliness and security.	Ensure connections, clean and secure.
5N54	Limit Switch	OT V	Adjustment, protective boots and security.	Ensure landing gear limit switches have correct adjustment in relation to the travel of the slides IAW EO 05-45B-2. Replace defective boots and switches. Ensure security.

ELECTRICAL SYSTEMS (Cont'd)

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Landing Gear System</u>				
5N55	Position Light Assembly	OT V	Defective lights, cracked jewels.	Ensure proper operation of circuits. Make adjustments IAW EO 05-45B-2 Part 7. Replace defective bulbs, lampholders, jewels and switches.
5F56	Undercarriage Switch Bracket	V	Security, cracks.	Check for cracks or damage. Ensure security.
5N57	Undercarriage Brake Relay	OT V	Operation and security.	Replace if defective.
5N58	Undercarriage Circuit Breaker.	OT V	Operation. Security.	Ensure proper operation.
5N59	Undercarriage Switch Latch	OT V	Adjustment of switch, operation of solenoid.	Ensure operation and adjustment, IAW EO 05-45B-2, Part 7
5N60	Emergency Release	OT V	Operation.	Ensure operation IAW EO 05-45B-2 Part 7.
5N61	Undercarriage Safety Switch	OT V	Operation, security and adjustment.	Ensure operation and security. Adjust IAW EO 05-45B-2, Part 7.
5N62	Undercarriage Warning Horn	OT V	Operation, security, connections and adjustment.	Ensure operation, security of mounting and connections. Re-adjust as required.
5N63	Throttle Warning Switches and Silencer	OT V	Adjustment, operation and security.	Ensure operation and security. Adjust IAW EO 05-45B-2, Part 7
5F64	Undercarriage Wiring	V	Security of installation, bare or chafed wires, connections.	Ensure security of mounting clamps, etc., repair or replace bared, chafed or burned wire. Clean and ensure proper connections.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
Miscellaneous Systems				
5F65	Bonding (Generally)	V	Wear, security of all bonding jumpers.	Ensure security of all bonding leads. Particular attention to be paid to static ground and to fuel tank filler grounding jacks. Replace if defective.
5N66	Pitot Heater and Wiring	OT V	Operation, security, bare or chafed wiring and connections.	Replace if not operating. Tighten loose connections. Ensure security of mounting clamps.
5N67	Plessy Pump and Propeller Dilution Valve	OT V	Operation, security.	Clean filter. Replace valve or pump if defective.
5N68	Switches and Engine Dilution Valve	OT V	Operation, flow test. Security.	IAW EO 05-45B-2. Replace solenoids if defective.
5N69	Propeller Feathering Pump Motor	OT DIA	Cleanliness and wear of brushes and commutator. Security of wiring and connections operation.	Replace if defective.
5N70	Propeller Anti-icing Motor and Pump	OT DIA	Security and operation. Cleanliness, flow test brushes for condition.	Clean, resecure. Operation test IAW EO 05-45B-2. Replace if defective.
5N71	Propeller Anti-icing Rheostat Control.	OT	Operation, adjustment.	Adjust IAW EO 05-45B-2, Part 4
5N72	Elevator Tab Transmitter	OT V	Travel, security.	Reset travel IAW EO 05-45B-2.
5N73	Wing De-Icer Motor	OT	Timing, commutator, brushes security, operation.	Operation. Boots inflate and deflate once every 40 seconds. Change worn brushes, tighten loose connections, secure. Replace if defective.

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Miscellaneous Systems</u>				
5N74	Propeller Feathering Relays	OT V	Operation and security.	Replace defective relays. Ensure security and installation of insulating boots.
5N75	Fuel Pressure Warning Units.	OT V	Operation, security, leaks.	Replace if defective. Adjust setting of switch. Ensure vent is free. Ensure security.
5N76	Circuit Breakers	V	Check for condition and security of connections.	Replace if defective.
5F77	Carburettor and Temperature Wiring	V	Bare or chafed wiring, oil impregnation, cleanliness and security.	Replace bare or chafed or oil soaked wiring; tighten connections.
5F78	Oil Temperature Wiring	V	Bare or chafed wiring, cleanliness and security.	Replace bare or chafed wiring, tighten connections.
5N79	Fire Detector System	V OT	Thermocouples, Wiring, Security Cleanliness, Operation	Thermocouples, Fire-Zone, wiring, for Cleanliness and security. Ensure Correct Operation.
5N80	Fire Detector Relay Panel	V	Shock Mounts, Connectors, Security and Cleanliness	Replace Shock Mounts if Defective.
5N81	Inverters	V DIA OT	Operation, Security, Brushes and Commutator Cleanliness	Brushes and Commutator for Wear, Output Voltage and Frequency for Correct Valves. Ensure Cleanliness and Security.

RADIO

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Interphone System RC-36</u>				
6N1	BC-347- Amplifier	OT	Operation, safety microphonic.	Operation IAW EO 05-45B-2
6N2	BC-347- Amplifier	OT	Operation in aircraft, security, cleanliness	IAW EO 35H-5RC36-2
6N3	PE-86 Dynamotor	OT	Operation, safety, noise.	Operation IAW EO 05-45B-2. Replace if noisy.
6N4	PE-86 Dynamotor	OT	Operation in aircraft, security, cleanliness	IAW EO 35H-5RC36-2
6N5	BC-366 Jack Boxes, and Pilots and Co-pilots Jacks	OT	Operation, safety, cleanliness	Operation IAW EO 05-45B-2. Clean Jacks and switch contacts.
6F6	Wiring and Plugs	V	Plugs for corrosion, wires for chafing.	Repair chafed wiring. Clean plugs.
6N7	Speakers.	OT	Operation	Operation IAW EO 05-45B-2.
<u>System AF/ICA or AN/ARC-3 or AN/ARC-502</u>				
6N8	VHF Transceiver	OT	Operation, tuning, safety.	IAW EO 05-45B-2 and check Transmitter output with field strength meter. Retune if necessary.
6N9	VHF Transceiver	OT	Operation in aircraft, security, cleanliness	IAW EO 35AA-5ICA67-2 or EO 35AA-5ARC502-2
6N10	VHF Transceiver	V	Shockmount for condition and security.	Replace IAW Serviceability Concept. Resecure.
6F11	Antenna "Lead-in"	V	Loose fittings, broken shielding	Tighten fittings, replace if shielding broken or frayed.

RADIO

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Command System SCR-274N</u>				
6N12	Command Receivers	OT	Operation in aircraft, security, cleanliness	IAW EO 05-45B-2 and EO 35AA-5SCR274N-2
6N13	DELETED			
6F14	Receiver & Transmitter Racks	DIS	Cleanliness and security.	Clean and resecure.
6N15	Command Transmitters	OT	Operation in aircraft, security, cleanliness	IAW EO 05-45B-2 and EO 35AA-5SCR274N-2
6N16	DELETED			
6N17	BC-456 Command Modulator	OT	Operation	IAW EO 05-45B-2.
6N18	BC-456 Command Modulator	OT	Operation in aircraft, security, cleanliness	IAW EO 35AA-5SCR274N-7
6F19	Transmitter and receiver Shockmounts	V	Wear, cleanliness and security.	Replace shock mounts IAW Service-ability Concept. Ensure cleanliness and security.
6F20	Modulator, Shockmount	V	Wear, cleanliness and security.	Replace shock mounts IAW Service-ability Concept. Ensure cleanliness and security.
6F21	Command Equipment Connectors	V	Cleanliness and security. Inserts for cracks.	Clean and resecure. Replace cracked connectors.
6F22	Antenna "Lead-ins"	V	Broken insulation, poor connections.	Replace if broken, clean connections.
6N23	BC-442 Relay	OT	Operation in aircraft, security, cleanliness	Replace defective assembly.

RADIO

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>Command System SCR-274N</u>				
6F24	Antenna Relay Shockmount	V	Wear, security.	Replace shock mounts IAW Service-ability Concept. Ensure security.
<u>Compass System</u>				
6N25	AN/ARN-7	OT	Operation in aircraft, security and cleanliness	IAW EO 05-45B-2 and 35AA-10ARN7-2. Ensure security.
6N26	DELETED			
6N27	6P-21-LM Loop	OT	Noise, speed, safety.	IAW EO 35AA-10ARN7-2. Clean resecure.
6N28	LP-21-LM	OT	Operation in aircraft, security and cleanliness.	IAW EO 35AA-10SCR269-2A.
6F29	Dehydrator and Hose	V	Dehydrator plastic for visibility, crystals for moisture, hose for leakage.	Replace plastic if darker than light yellow. Replace crystals if moisture evident. Ensure security of connections.
6F30	Loop and Antenna "Lead-ins"	V	Broken bonding, loose connectors.	Renew bonding, tighten connectors.
6N31	Radio Compass Inverter	OT	Operation, security.	Ensure required voltage output. Ensure security of inverter and bonding.
6N32	Radio Compass Inverter	OT	Operation in aircraft, security, cleanliness	Type MG-149 IAW EO 40-30FA-2, Type F16-2 IAW EO 40-30JA-2.
<u>ILS System</u>				
6N33	Localizer Receiver	OT	Operation in aircraft, security and cleanliness,	IAW EO 05-45B-2 and EO 35AA-10RC103-2

RADIO

Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
<u>ILS System</u>				
6N34	DELETED			
6N35	Glide Path Receiver	OT	Operation in aircraft, security, cleanliness	IAW EO 05-45B-2 and EO 35AA-10ARN5-2.
6N36	DELETED			
6F37	Receiver Shock Mounts	V	Security, mounts for deterioration, bonding.	Ensure security. Replace shock mounts IAW Serviceability Concept. Ensure bonding.
6F38	Antenna and "Lead-in"	V ETE	Bent or broken elements, lead-in for leakage.	Straighten bent elements, megger lead-in.
6N39	ILS Junction Box	V	Loose terminals, corrosion, lid deformation, condensers for deterioration.	Tighten loose terminals, remove corrosion IAW Serviceability Concept. Repair damaged lids, replace defective condensers.
6N40	ILS Indicator	OT	Check ON- OFF flags operating. Needles for movement (in aircraft)	Replace indicator if inoperative.
<u>Marker System</u>				
6N41	MN-53B Receiver	OT	Operation in aircraft, safety, cleanliness	IAW EO 05-45B-2 and EO 35AA-10MN53-2
6N42	DELETED			
6N43	Marker Lights	OT	Missing or burnt-out bulbs	Replace missing or burnt-out bulbs.
6F44	Marker Antenna CO-AX	V	Lead leakage. Damage, loose fittings.	Replace if defective, tighten fittings. Megger Leads.
6F45	Receiver Shock Mount	V	Security, deterioration.	Ensure security. Replace mounts IAW Serviceability Concept.

RADIO

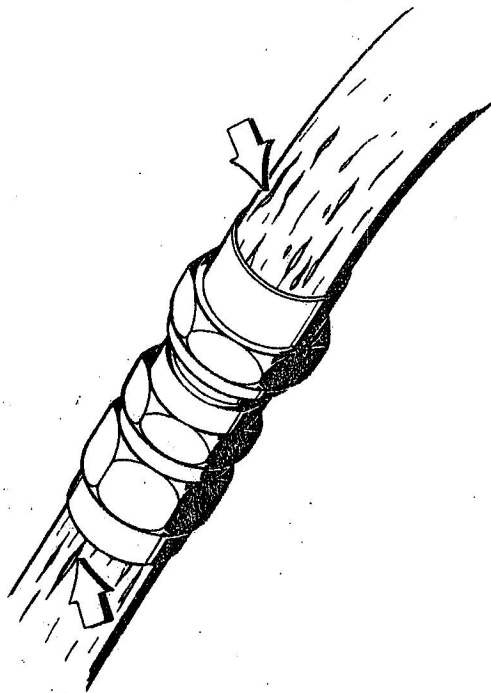
Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
General				
6N46	Isolation Amplifier	OT	Operation in aircraft, security, cleanliness.	IAW EO 05-45B-2 and EO 35H-20/0A5002 -2. Adjust controls under cockpit control panel to set headset volume.
6N47	DELETED			
6N48	FL-30 Radio Range Filters	OT	Operation	IAW EO 05-45B-2.
6F49	# 5 Radio Junction Box # 9 Radio Junction Box # 10 Radio Junction Box	V	Terminals for looseness and Corrosion. Placards for readability, relays for operation and cleanliness.	Remove corrosion IAW Serviceability Concept. Tighten terminals. Renew placards IAW Serviceability Concept. Replace relays having pitted contacts.
6F50	All radio plugs and connectors	V	Cracks, security and cleanliness.	Clean. Lockwire. IAW relevant EO's Replace cracked connectors.
6F51	Radio Control Panel	V	Defective internal wiring and circuit breaker strip. Loose switches and components. Placards for readability.	Repair broken or burnt wiring. Replace defective circuit breakers. Tighten loose switches and components. Replace placards IAW Serviceability Concept. Lubricate gears IAW EO 35A-1-1.
6F52	Radio Control Panel Relays	V OT	Points for condition	Reset and clean points. Ensure adequate clearance between relays and structure. Replace defective relays.
6F53	Remote Flex Drives and Right Angle Couplings	V	Free and smooth operation, security.	Lubricate drives with dry graphite, MIL-G-6711. Ensure security, lubricate couplings with 3-GP-683.

RADIO Item No.	Inspection Item	Coding	Inspection Condition	CAIR Guideline
6F54	All Accessible Radio Wiring Cables	V	Loose tying or chafed wiring, security of harness bands.	Re-tie, cover shafed cables. Re- secure IAW Serviceability Concept.
6F55	Noise Test	EO	Engines interference with engines running.	IAW EO 35A-1-8A.
6F56	Bonding, where visible.	V	Security and damage.	Resecure, repair or replace to ensure bond.
6F57	Headsets and Microphones.	OT	Operation	Ensure that headsets and micro- phones are serviceable. Deficient units will not be replaced.
6F58	ARC 552 Transceiver	OT	Operation in aircraft, security, cleanliness.	IAW EO 35AA-5ARC552-2.
6F59	C5064 Control	OT	Operation in aircraft, security, cleanliness.	IAW EO 35AA-5ARC552-2.



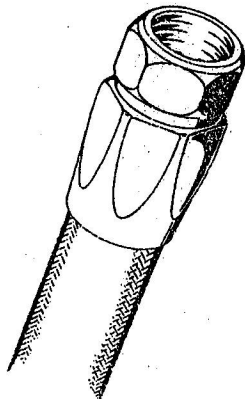
LOW PRESSURE FLEXIBLE HOSE

Minor weather checking and surface cracks are acceptable.



FLEXIBLE HOSE LINES, SWAGED FITTINGS

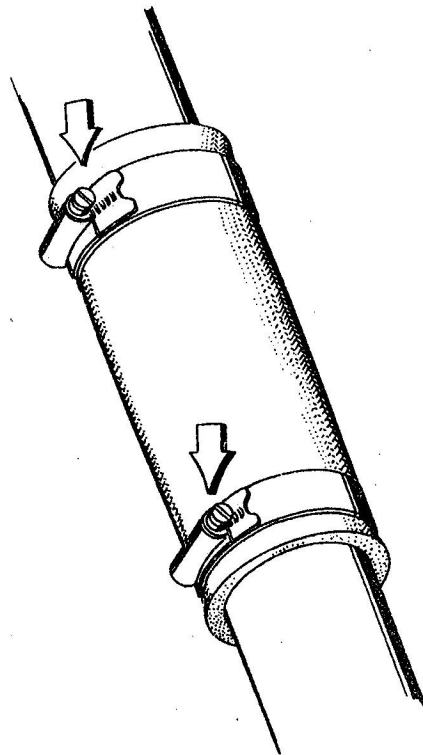
Severely damaged swaged fittings must not be reworked but must be replaced complete with hose. Minor dents and cracks are acceptable on fittings.



NOTE: Whenever doubt exists as to the serviceability of a flexible line, hose or connection it will be replaced.

HOSE CONNECTION

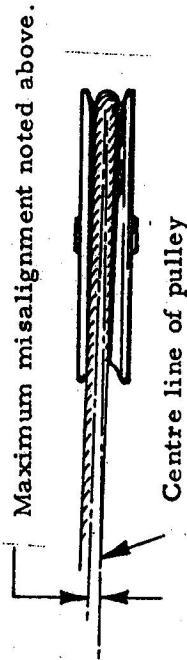
Retorque hose clamps to valves in accordance with EO 05-1 -3. Replace clamps of types other than AGS605 in accordance with EO 05-1 -3.



CONTROL CABLE WEAR AND TOLERANCE

Cable pulley alignment is defined as the angle between the centre line of the cable and the plane of the pulley.

CABLE FIXED ALIGNMENT - Where control cable has angular motion with respect to the pulley plane, the maximum misalignment resulting from this motion shall not exceed two (2) degrees each side of centre for neutral position of controls, and three (3) degrees each side of centre for any position of the controls between one half and full movement.

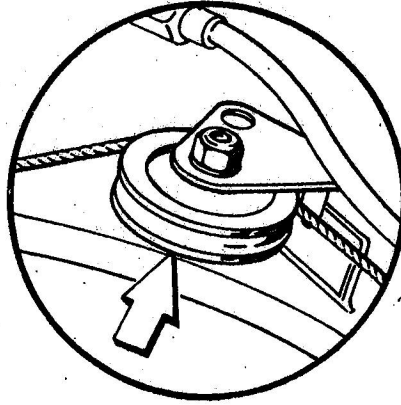


PULLEY FLANGE CLEARANCE

Cables rigged in excess of 125 pounds shall have a minimum clearance of .002" from flange of pulley.

PULLEYS

Pulleys which are frozen, cracked or are unevenly worn will be replaced. Wear of outer rim of pulley is reason for rejection. The cause for this kind of wear shall be eliminated.



SERVICEABILITY CONCEPT

A. TUBING

Minor kinks in bends of tubing and minor change in section that do not decrease nominal tube diameter by more than 5% or .030, whichever is greater, is acceptable.

B. MINOR SCRATCHES

Minor scratches on all tubing except high pressure lines are acceptable.

C. CODING OF HYDRAULIC LINES

Recoding of hydraulic lines will not be accomplished at the C. A. I. R. facility. New lines installed must be coded.

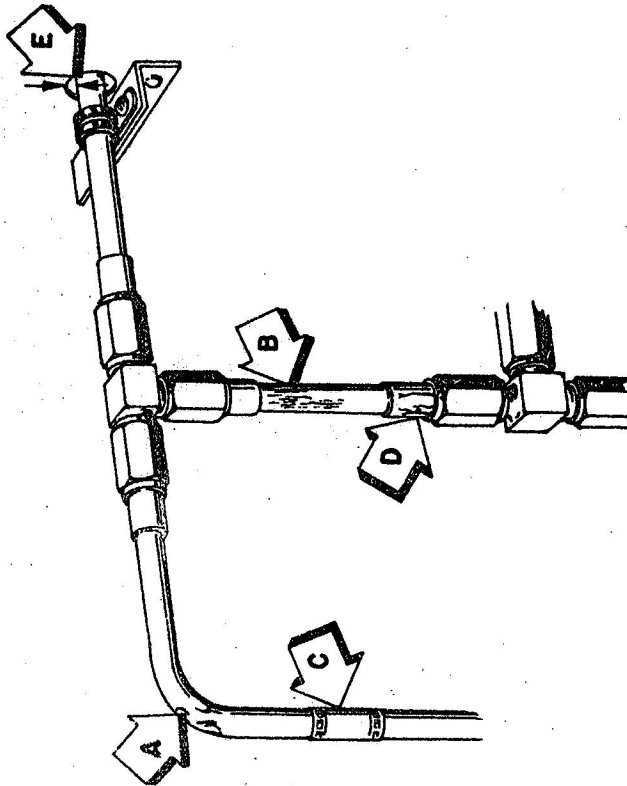
D. TUBING SLEEVES

Cracked sleeves on return lines, drain lines and vent lines which show no evidence of leaking are acceptable.

Cracked sleeves on pressure lines or fuel lines will be replaced.

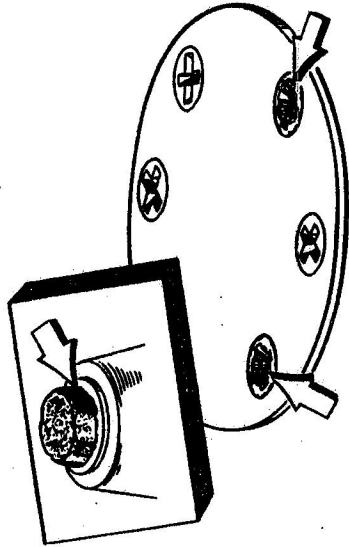
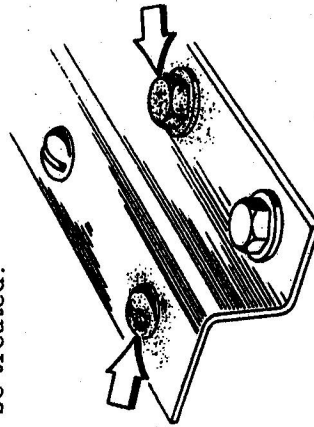
E. MINIMUM CLEARANCE

Minimum clearance between tube or hose and adjoining structure - 1/8 inch.



SCREWS AND BOLTS

Minor corrosion on screws and bolts is acceptable and corrosion need not be treated.



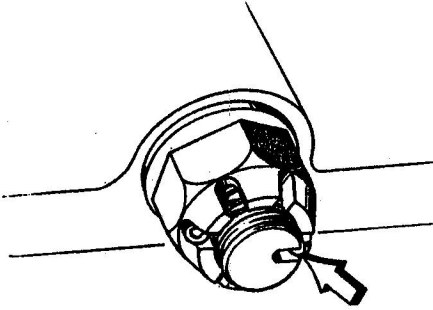
SCREWS - BOLTS

Screw and bolt-heads damaged due to repeated removals in service are replace only if they are removed for other reasons.

SERVICEABILITY CONCEPT

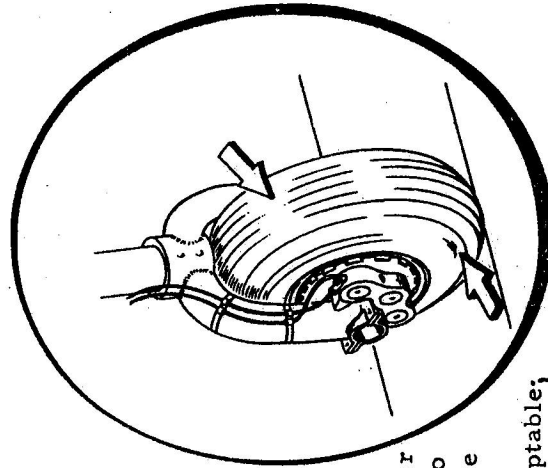
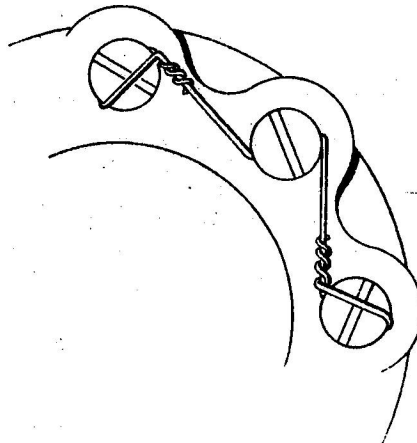
COTTER PINS

Cotter pins will not be replace because of wrong type, slight looseness, wrong direction, or other reasons, if they serve their intended purpose.



SAFETY WIRE

Safety wiring will not be changed if the applied method assures a secure installation.



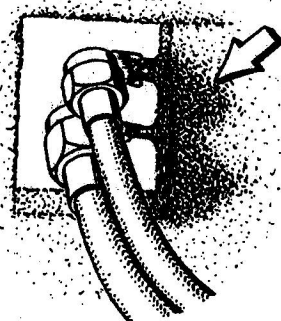
TIRES

Small cuts and weather checks which do not go through to the cord are acceptable. Smooth tread area is not acceptable; unmatched tire treads are not acceptable. See also EO 110-5-2.

A. To check inflation: See EO 110-5-2 for tire pressures.

FABRIC, SOUNDPROOFING

Soundproofing, seat covers, curtains and carpets will be cleaned and repaired as required. Discolouration is acceptable. New and old panels may be used side by side. Patches of good workmanship are acceptable. Soundproofing panels saturated with oil will be replaced.



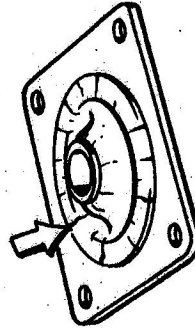
DECALS, STENCILS, NAMEPLATES

Faded or discoloured legible decals or nameplates will be acceptable. Illegible stencils, decals or nameplates will be touched up or replaced. New and old nameplates or decals are permissible side by side. Old decals or parts of decals which are to be replaced will be removed before new decals are applied.

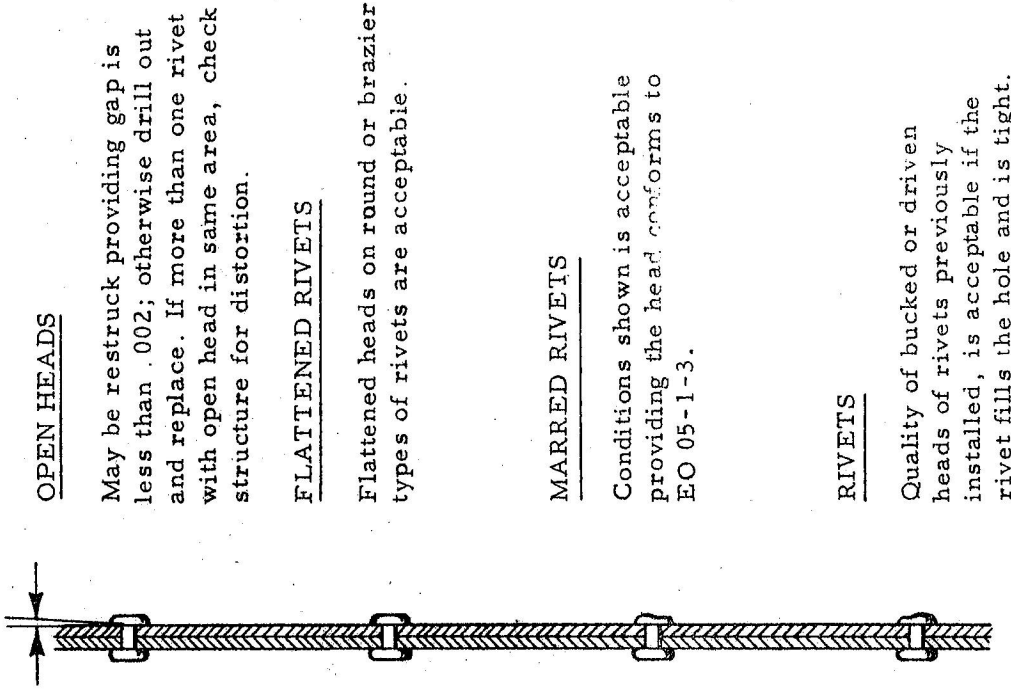


SHOCK MOUNTS

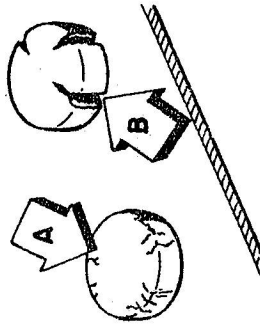
Weather checked and deteriorated shock mounts are permissible, providing the mounts adequately support the equipment.



SERVICEABILITY CONCEPT



CRACKS IN UPSET HEADS



A. ACCEPTABLE

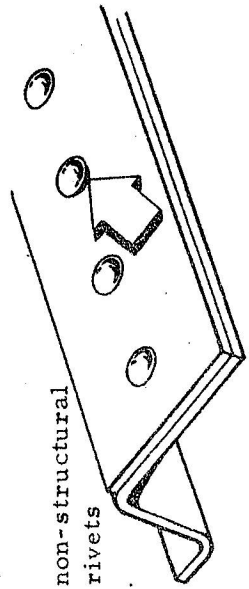
Fine line cracks around periphery providing acceptable to EO 05-1-3.

B. UNACCEPTABLE

Wedge shaped cracks on periphery or cracks in any other location on bucked head other than permitted above.

RIVETS

Small isolated non-structural areas of loose rivets are acceptable.



OPEN HEADS

May be restruck providing gap is less than .002; otherwise drill out and replace. If more than one rivet with open head in same area, check structure for distortion.

FLATTENED RIVETS

Flattened heads on round or brazier types of rivets are acceptable.

MARRED RIVETS

Conditions shown is acceptable providing the head conforms to EO 05-1-3.

RIVETS

Quality of bucked or driven heads of rivets previously installed, is acceptable if the rivet fills the hole and is tight.

A. FLEXIBLE ELECTRICAL BRAIDED CONDUIT

Conduit with the braid damaged and cut wire strands showing is to be examined for degree and nature of damage. The conduit length is to be replaced if damage extends through to the flexible casing, and if repair or damaged braid by local soldering is impractical or extensive.

B. AN/CONNECTORS

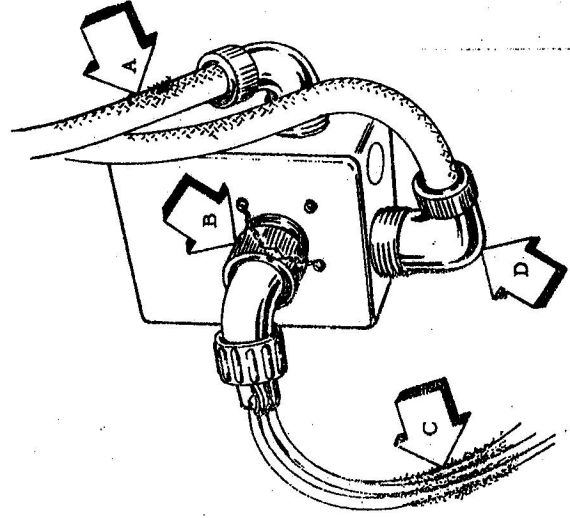
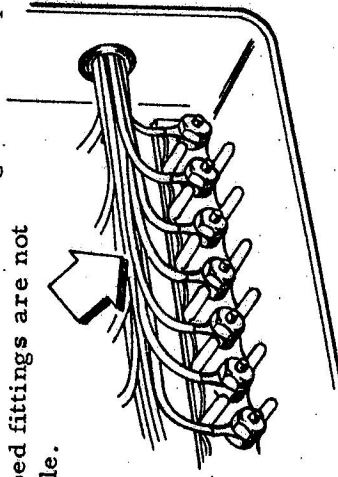
Safety all connectors that have safety provisions except those on shock mounted equipment and those accessible on ground without the use of tools. Knurled type coupling nuts to be finger tight only.

C. ELECTRICAL WIRING

Electrical wires which have the insulation frayed or damaged will be repaired by splicing in new wiring with permanent type splices. Eliminate cause of damage.

D. ELECTRIC CONDUIT FITTINGS

Marred conduit threaded fittings are acceptable. Cross threaded or stripped fittings are not acceptable.



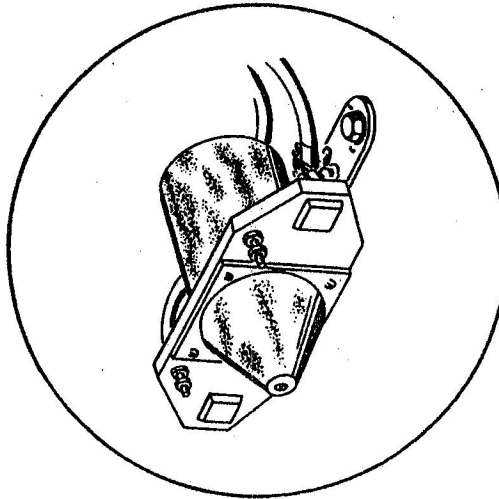
UNIDENTIFIED ELECTRIC CABLE

Unidentified, installed wiring will not be re-identified. New or replaced wiring will be correctly identified in accordance with Spec. MIL-W-5088.

SERVICEABILITY CONCEPT

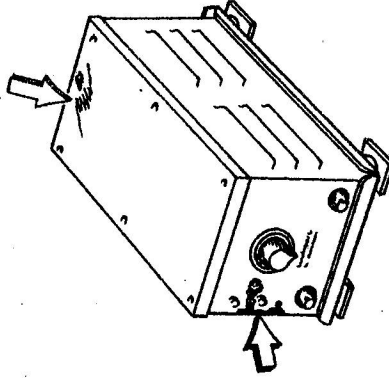
EXTERNAL CORROSION OF SOLENOIDS

Minor corrosion on external surfaces of solenoids is acceptable and corrosion need not be treated.



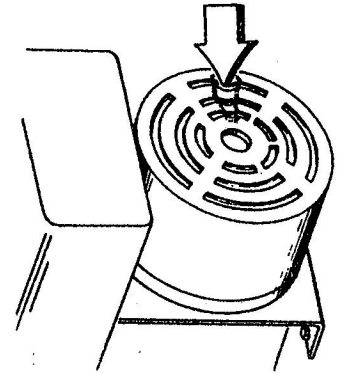
PAINTING OF ELECTRONIC EQUIPMENT

Electronic equipment covers which have paint scratched and/or chipped will be touched up or refinished, except minor scratches or chips which are acceptable. Slight variance is acceptable.



INVERTER

Dented end bells are acceptable when dents do not affect operating efficiency.



SERVICEABILITY CONCEPT

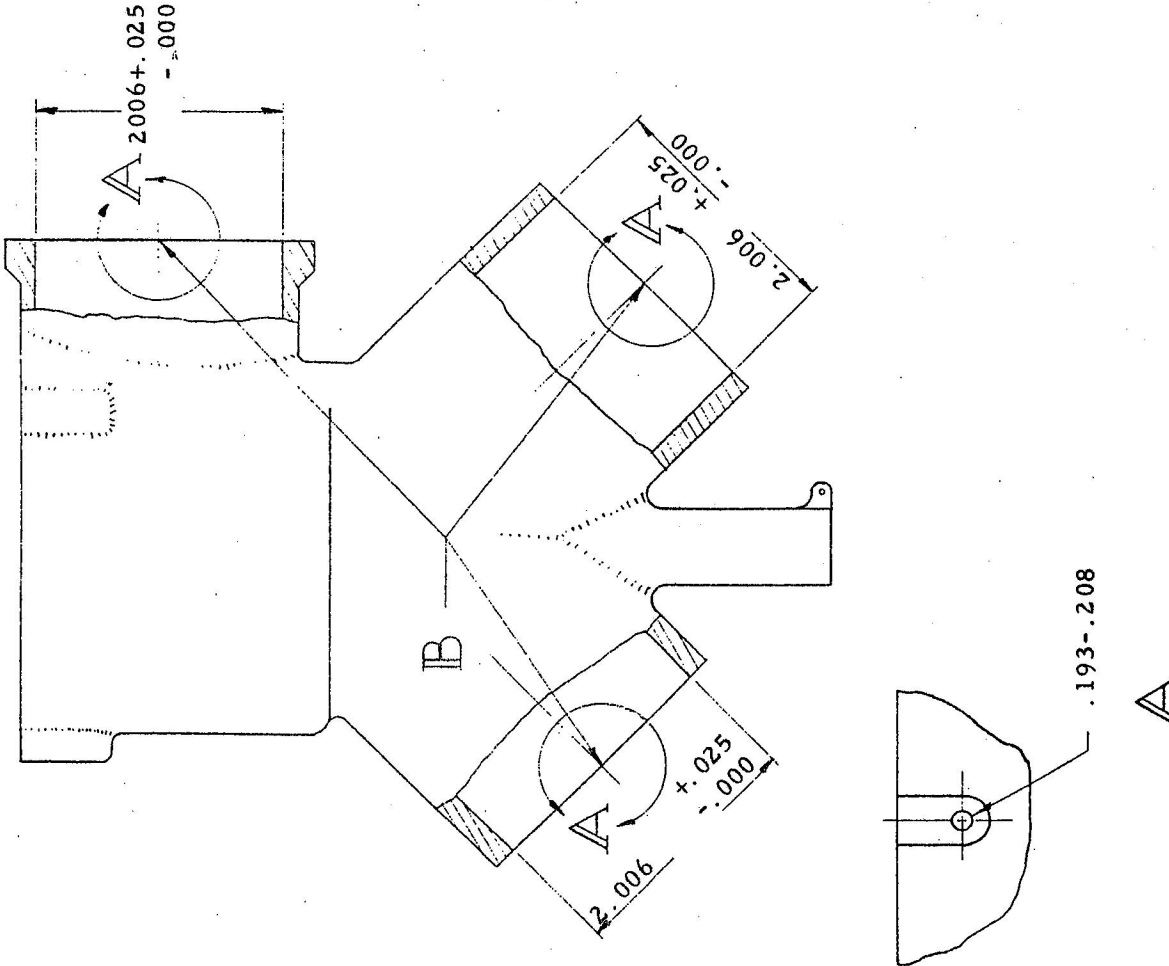
CABIN HEATER VALVES

The wear limits are to be checked on item 3F12 and if exceeded, the part is to be removed and repaired. These limits apply to the largest dimension in the cases of eccentricity or elongation.

For repair, when the limits are exceeded, the holes denoted by "A" are to be welded up. They will be drilled .193-.200 upon installation to match 814-183955.

The holes denoted by "B" will be sleeved. The sleeve will be installed wet with zinc chromate primer to MIL-P-6889. If the holes denoted by "A" need repair at the same time, they will be welded up prior to machining of the valve.

The welding will be accomplished by arc welding with MIL-R-6944 Grade C welding rod.



SERVICEABILITY CONCEPT

C. A. I. R. CARBURETOR AIR SCOOP

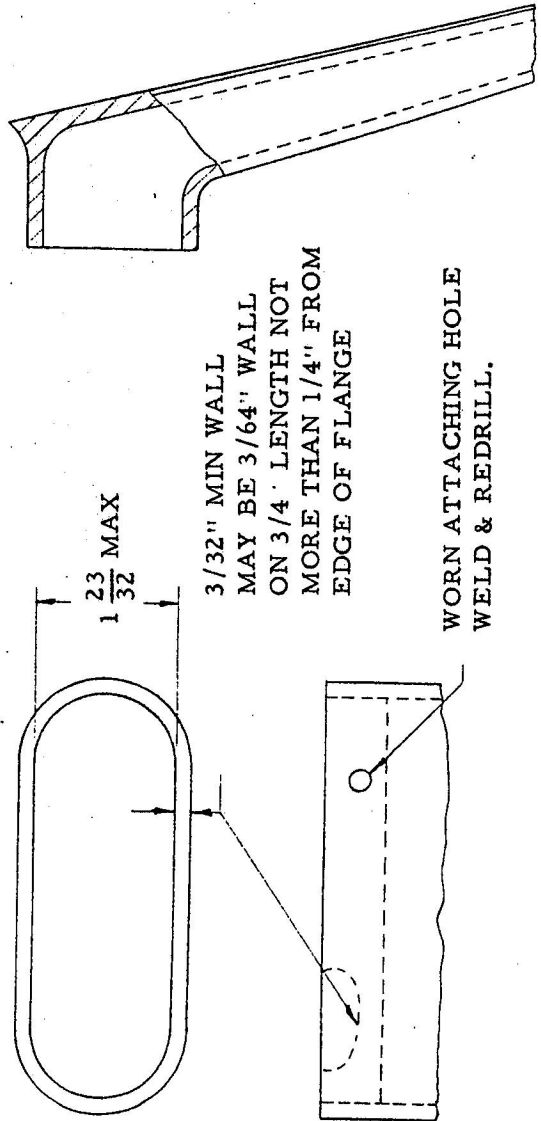
The following concept applies to the 18S9150 carburetor airscoop on Expeditor C. A. I. R. aircraft.

1. Valve bearings and shafts

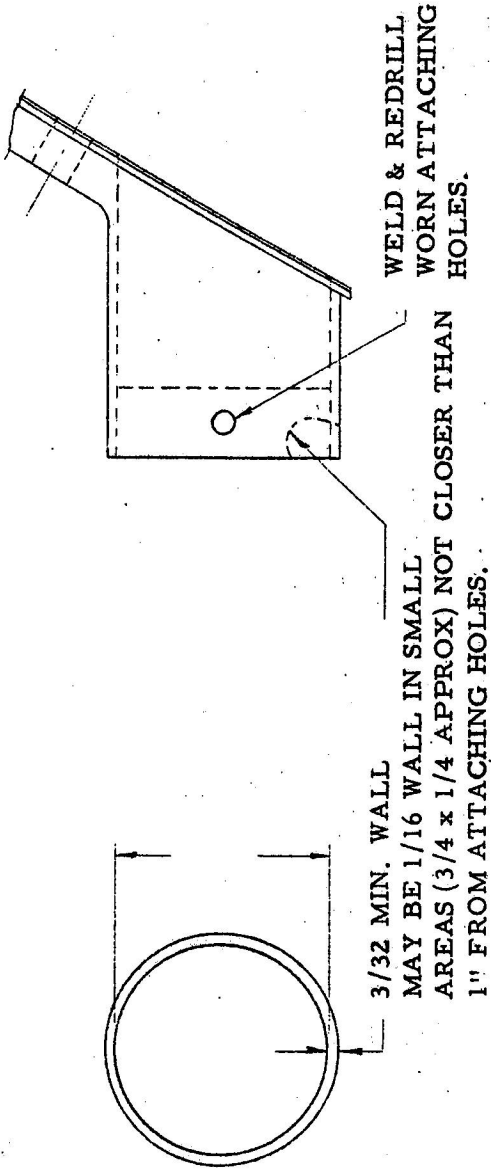
Bearings are to be checked by moving the valve back and forth between its extreme positions. Worn bearings or shafts are indicated by binding between the housing and the valve. Worn bearings or worn shafts are to be replaced.

2. Side Plates (18S9152-2 and -3)

Side plates are to be checked for worn attaching holes and worn carburetor hot air flange and air intake duct flange. The following limits may be used as a guide to determine the allowable wear on the flanges.



C. A. I. R. CARBURETOR AIR SCOOP



3. The scoop assemblies need not be removed from the aircraft if acceptable to the above concept. However if any repair or in doubtful cases, the scoop is to be removed, and processed through the stop.
4. The limits given are to be used as a guide only, sound aircraft practice is to be applied in each individual cases to determine the serviceability of the scoop.

SERVICEABILITY CONCEPT

REPLACEMENT OF UPPER LEADING EDGE SKIN - CENTER SECTION

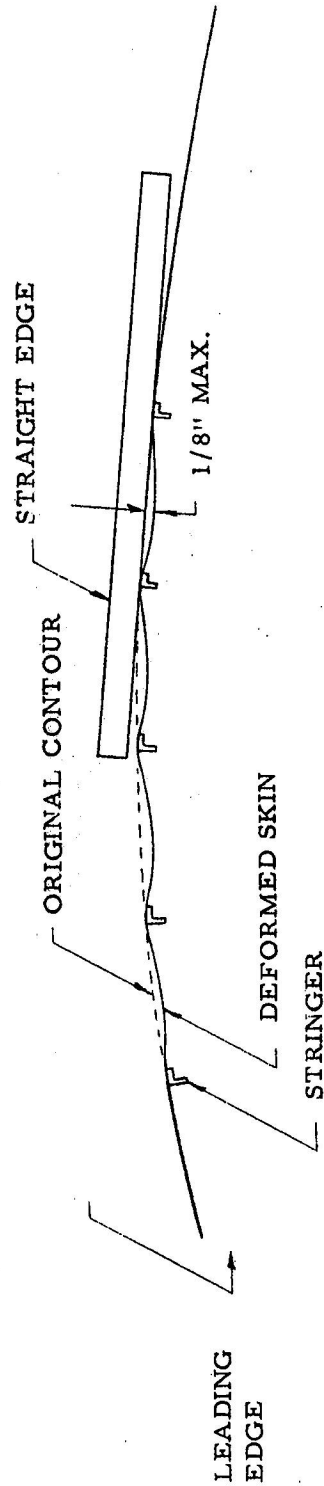
Deformation of the upper leading edge skin on the center section wing.

As a guide for determining the maximum deformation allowable, the limit shown in the following sketch may be used.

Doubtful cases should be referred to RCAF Engineering.

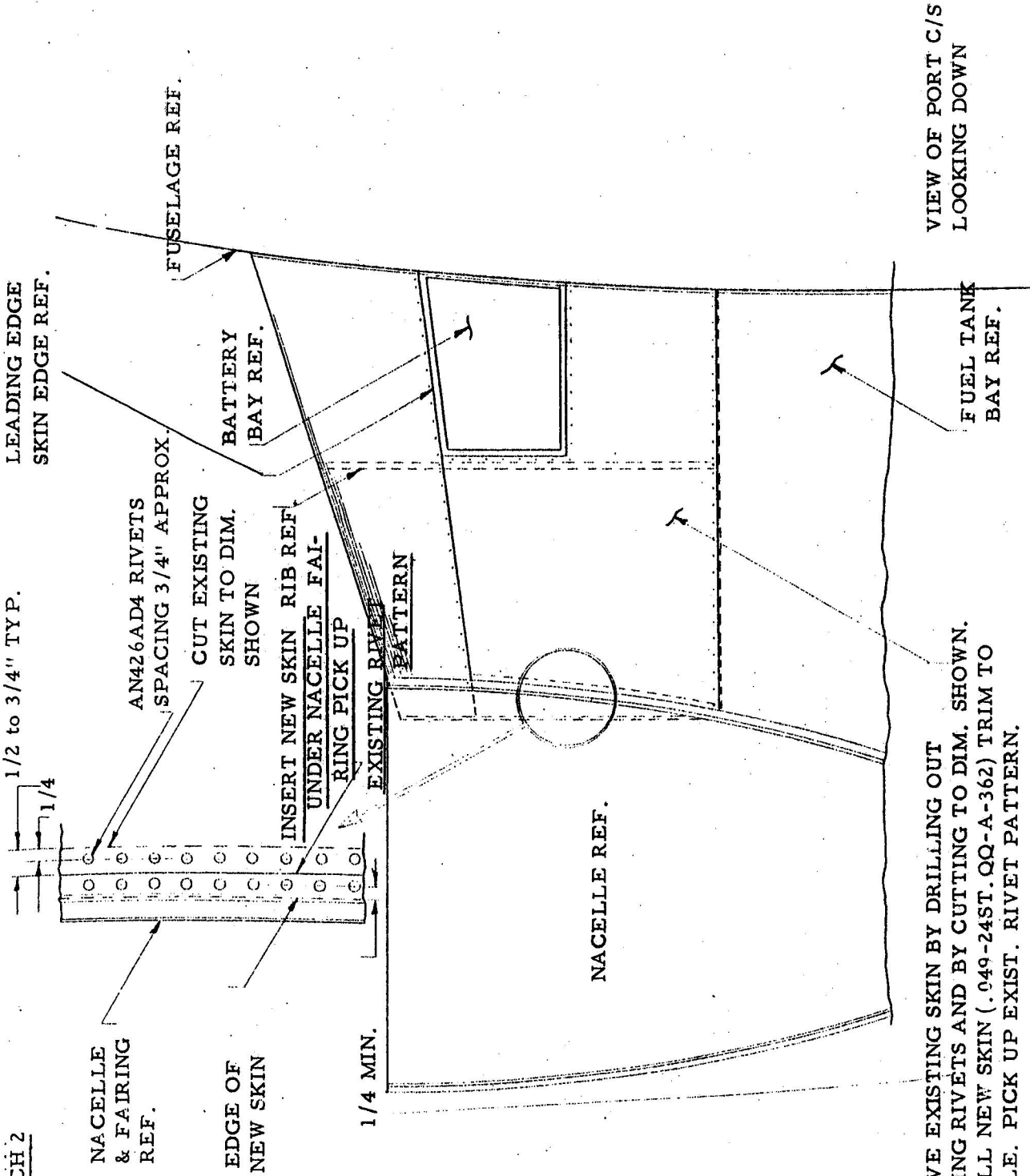
Skin deformation exceeding the limits of Sketch I is to be replaced IAW following Sketch 2, Page 14.

SKETCH I



SERVICEABILITY CONCEPT

SKETCH 2



REMOVE EXISTING SKIN BY DRILLING OUT EXISTING RIVETS AND BY CUTTING TO DIM. SHOWN. INSTALL NEW SKIN (.049-24ST. QQ-A-362) TRIM TO SAMPLE. PICK UP EXIST. RIVET PATTERN.

SERVICEABILITY CONCEPT

SERVICEABILITY CONCEPT SAFETY HARNESS - C. A. I. R.

The following information is compiled to act as a guide for determining the serviceability of the Safety Harnesses on ExpeditoR CAIR program.

Examine the safety harness for the following conditions:-

1. Damage to webbing by cutting, abrasion or deterioration.
2. Contamination, frays, broken cords and stitching, loose or damaged fittings.
3. Ensure that the leather used in facing straps is not cracked, and also that it is securely stitched in place.

Obvious or extreme cases of the above conditions are cause for rejection.

Slight fraying and abrasion are acceptable. Cut in webbing is cause for rejection.

In doubtful cases the serviceability can be determined by proof loading as follows:-

4. The harness shall be assembled in a testing machine and subjected to 1000 - 0⁺⁵⁰ pounds. proof load., to each shoulder strap. There shall be no weakening of the webbing and/or stitching, slippage of the webbing through the adjusting hardware or deformation of the metal fittings.

If any of the above conditions are apparent, the harness shall be rejected.

SPECIAL NOTE EXPEDITOR 3TM only

Particular attention is to be paid to the appearance (condition and cleanliness) of the harnesses used on this aircraft.

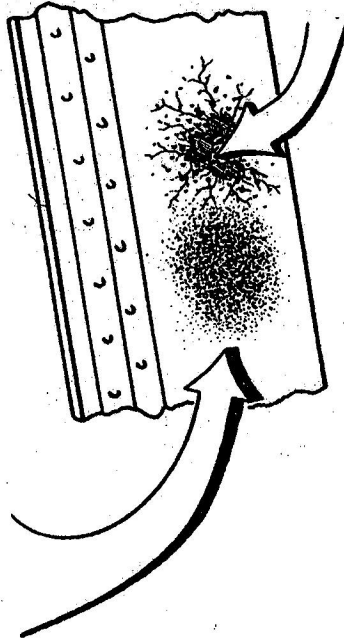
5. A harness which is generally soiled through misuse, contact with oil, etc. will be RER'd.
6. Harnesses not as above will be spot cleaned by dipping a clean cloth in a one percent solution of soap to 2-GP-3 (RCAF Ref. 33C/734) at a temperature not exceeding 120 °F and rubbing the affected areas lightly.

NOTE: Allowance must be made for some discolourations since it is impossible to remove all of the soil or to restore the original colour of the harness webbing in every instance.

DEGREE OF ACCEPTABILITY OF
BURNED MEMBERS

Minor discoloration of paint on burned areas is acceptable. Areas where paint is heavily charred, blistered or flaked should be subjected to Brinell or Rockwell hardness test.

Discolouration
of paint
acceptable.



Blistering-flaking charred paint, test
of hardness.

SERVICEABILITY CONCEPT

A. CLAMPS SUPPORTING ELECTRIC CABLES

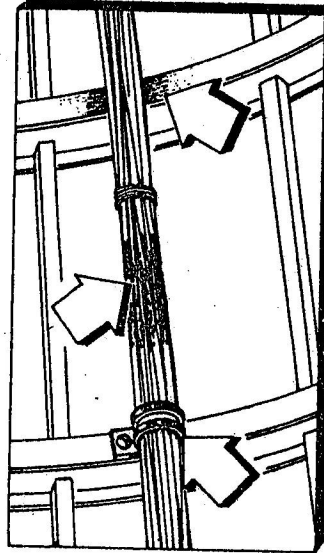
Cushion type clamps supporting electric cable bundles will not be replaced if the cushion material is found to be perished. Minor damage to a serviceable cushion will be acceptable. Cable bundles found to be loose within serviceable clamps are to be packed with suitable wrapping of approved electrical insulating tape.

B. CHAFING OF ELECTRIC CABLES

Cable bundles making physical contact with frames or other smooth metal surfaces will be considered serviceable if insulation of cables shows negligible wear. Action will be taken to eliminate further wear due to movement of cable bundle by locally wrapping harness with approved electrical insulating tape.

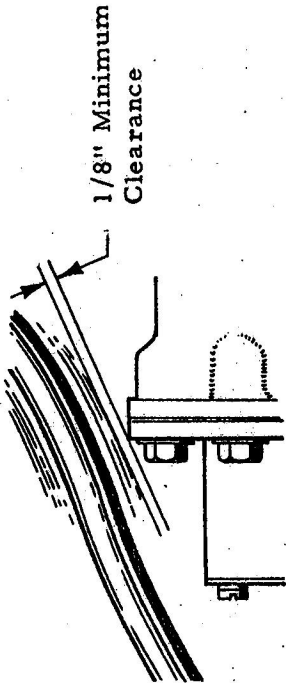
C. FLUID SOAKED ELECTRIC CABLES

Cable bundles saturated with hydraulic fluid or oil will be wiped clean. If no evidence of deterioration is observed, such cables or cable bundles will be suitably wrapped with approved electrical insulating tape to preclude further saturation of cables.



PLUMBING CLEARANCE

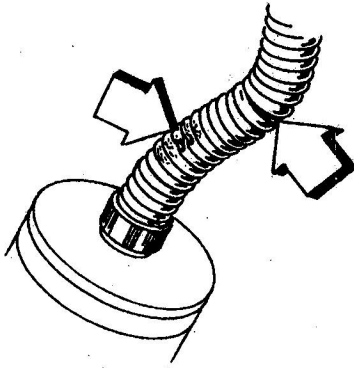
Electrical cables must be firmly supported away from liquid and gas lines. Common clamping of fuel and electrical wires is NOT permissible. Clearance between tube or hose deflected under flight loads and a projection, applies only when not shown otherwise on drawing.



1/8" Minimum Clearance

FLEXIBLE DRIVE CASING

Minor scratches and dents are permissible. Replace all kinked or stressed casings.

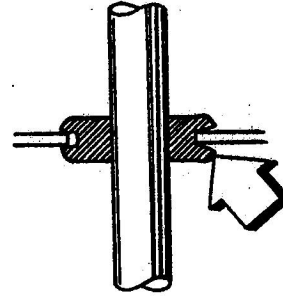


CLEARANCE BETWEEN TUBE AND MEMBER.

MINIMUM PERMISSIBLE BEND RADII FOR HOSES

<u>Hose Specification</u>	<u>Size</u>	<u>Minimum Bend Radius</u>
MIL-H-8794 and MIL-H-8795	Up to and Including -6	8 X O. D.
MIL-H-8794 and MIL-H-8795	Over 6	5 X O. D.
MIL-H-8788 and MIL-H-8790	Up to and including 1 1/4 I. D.	6 X I. D.
MIL-H-8788 and MIL-H-8790	Over 1 1/4 I. D.	12 X I. D.
MIL-H-5593	All	12 X I. D.
MIL-H-6000	All	12 X I. D.

Avoid tube bearing on grommet causing cutting.

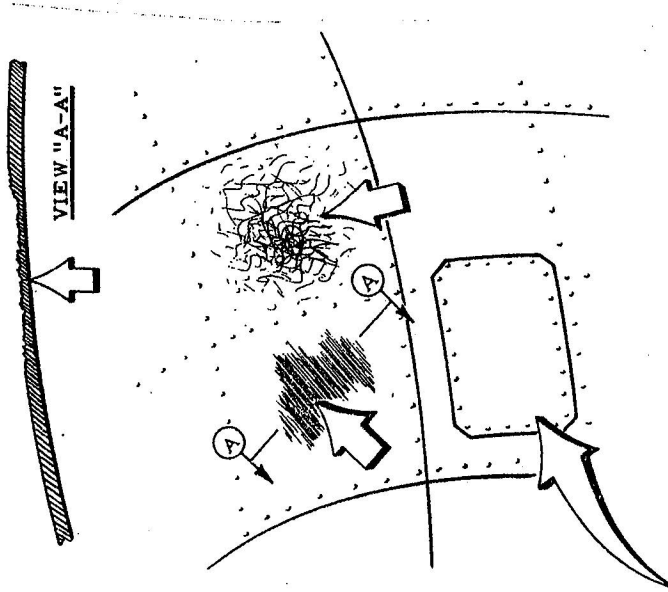


Where smaller diameter radii than given in this table are required by drawing, the drawing shall govern.

SERVICEABILITY CONCEPT

CORROSION

Provided it does not penetrate alclad, minor corrosion evidenced by thin loosely adhering power is acceptable. Refinish corroded alclad aluminum alloys I. A. W. EO 05-1-2AH. Refinish corroded non-alclad aluminum alloy I. A. W. E. O. 05-1-2AH.



SHEETMETAL PATCHES

Sheetmetal field patches need not be replaced if serviceable I. A. W. -3 E. O.

ABRASIONS, NICKS, DENTS

Scratches and abrasions which do not penetrate the alclad are permissible. Clean I. A. W. EO 05-1-2AH and in cases of doubt test penetration I. A. W. part I, paragraph 4, of the EO.

INTERIOR FINISH - EXPEDITOR 3 TM

1. PURPOSE

- 1.1 This Appendix details the interior finish requirements for the Expeditor 3 TM as used by the RCAF.

2. PRECEDENCE

- 2.1 Whenever discrepancies exist between this Appendix and the drawings, (Beech Aircraft Corporation, MacDonald Bros, Aircraft Ltd., Bristol Aircraft (Western) Limited), this Appendix will be followed. In all cases of doubt, the RCAF must be consulted.

3. MATERIALS AND WORKMANSHIP

- 3.1 All materials used shall conform to aircraft material specifications issued or approved by the RCAF or as called for herein. Any substitutions or alterations must be approved by the RCAF. All workmanship shall conform to good aircraft practice.

4. GENERAL REQUIREMENTS

- 4.1 Rubber seals around doors, windows, etc., shall be treated with a coat of a solution of two parts water and one part of Oskite #6, thoroughly dissolved. Apply the solution to the surface that is to come into contact with metal or another rubber surface.
- 4.2 Cements and sealers will be applied in accordance with EO 05-45B-2, EO 05-45B-3 and EO 50-20A-2.
- 4.3 Sound deadner shall be applied in accordance with Beech Process Specification PS284, special coverage, or equivalent.
- 4.4 Prime metal surfaces which are to be painted shall be painted with primer conforming to 1-GP-132. Enamels shall be equivalent to 1-GP-133 and lacquers shall be equivalent to 1-GP-134. The following areas are to be kept free of paint.
- 4.4.1 Flight control cables and chains.
- 4.4.2 Electrical wiring except where called for as a requirement.
- 4.4.3 Rubber and rubber like surfaces.
- 4.4.4 Plumbing.
- 4.4.5 Areas covered with sound deadner.
- 4.4.6 #5 and #9 bulkhead threshold plates, cabin door sill, cabin and lavatory door striker plates, metal floorboard moulding, metal inspection plate covers on the floorboard, flarechute doors.
- 4.5 Safety markings shall be in accordance with EO 05-1-2U with exceptions as noted herein.

INTERIOR FINISH - EXPEDITOR 3TM (Cont'd)

5. DETAIL REQUIREMENTS

5.1 Paint

- 5.1.1 Cockpit and cabin chair frames shall be 1-GP-12 grey, 1-17.
- 5.1.2 Cockpit - The floating instrument panel, window sill, and all paint trim except the deck and the prop feathering switch guard shall be 1-GP-12 grey, 1-17. Flock the deck black. Paint the prop feathering switch guard 1-GP-12 black, 10-201.
- 5.1.3 Cabin - All cabin interior metal trim and the inside of the lavatory shall be 1-GP-12 grey 1-17.
- 5.1.4 Paint the control lock assembly, landing gear clutch cover, emergency exit release, emergency exit release guard, cabin door emergency release guard on the cabin door frame, wobble pump handle, fire extinguisher bracket, crash axe, 1-GP-12 red 9-2.
- 5.1.5 Coat the interior of the electrical junction boxes with No. 1201 Glyptal enamel.

5.2 Upholstery

- 5.2.1 Refer to the applicable upholstery drawings for location of upholstery. All upholstery materials shall conform to CAA Safety Regulation Release 259, Section 1, Part 3 (Flame Resistant Materials).
- 5.2.2 Chairs
 - 5.2.2.1 The cockpit chair cushions will be stuffed with Hairlock, the upper surface and edges of which will be covered with Acrilan. The covering will be Air Force Blue upholstery leather, colour 1-GP-12 blue 2-206.
 - 5.2.2.2 The cabin seats will be upholstered in fabric. The chair arm rests will be covered with Air Force Blue upholstery leather, as per para 5.2.2.1.
- 5.2.3 Cockpit - The cockpit interior walls and ceiling will be upholstered in Duratrim, style V213, Grain 5, Colour Blue 433, or equivalent. The arm rests by the cockpit sliding windows will be upholstered in Air Force Blue upholstery leather as in 5.2.2.1 above. The cockpit speaker cloths will be light blue wool fabric equivalent to 1-GP-12 blue 2-201.
- 5.2.4 Cabin - The cabin side walls, #5 bulkhead, fore face of #9 bulkhead, cabin door, cabin emergency exit, and the cold air ducts will be upholstered in Duratrim, style V213, grain 5, colour Blue 433, or equivalent. The bodies of the ILS Junction box and the BK22 Relay box will be covered in Duratrim, style V213, grain 5, colour Blue 433, or equivalent. The covers will be covered in Air Force Blue garment leather. A garment leather boot of Air Force Blue will cover the cables leading to the BK22 Relay Box. The head liner will be Duratrim style H-24, grain 650, colour Grey 940, or equivalent, and installed by means of Monadnock Mills extrusions 295078 at Bulkhead #5, 295068 at frames #6, #7, #8; 295067 at Bulkhead #9 and the sides of the fuselage; all using 295101 caps. The edges of the cold air ducts will be piped with Air Force Blue garment leather and the seal around the lavatory door will be covered in

INTERIOR FINISH - EXPEDITOR 3TM (Cont'd)

5. DETAIL REQUIREMENTS (Cont'd)

5.2.4 Cabin (Cont'd)

Air Force Blue garment leather. The seals around the cabin entrance door and the cabin emergency exit will be covered with garment leather, the colour conforming to 1-GP-12 red 9-2. The curtains installed at the windows shall be RCAF tartan cloth, Text 3-3-6. #5 Bulkhead curtain and tieback shall be #935005 Goodall Angora Satin blue-grey curtain material of the Goodall Fabrics, Inc. or equivalent.

5.3 Floors

5.3.1 Floorboards - Whenever the linoleum and/or an approved substitute floorboard covering used in any one compartment (pilot, cabin, lavatory) is made up of two or more different colours, dye the linoleum and/or substitute black with an oil soluble dye dissolved in lionoil.

5.3.2 Carpet - The carpet will be of Royal Tex Deluxe Cocoa #SP804 to drawing 111-84022, or equivalent.

