BOMBARDIER AEROSPACE

de Havilland
CAGE CODE 71867

ENGINEERING STANDARD PRACTICE

DOCUMENT NO.: **ESP 64-1**

REV: **1**

TITLE: **DHC-8 SERIES 400 PROTECTIVE TREATMENT**

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DHC-8 SERIES 400 PROTECTIVE TREATMENT

1 SCOPE

This document summarizes the drawing requirements for protective treatments on the DHC-8 Series 400 production aircraft.

2 INTENDED USE

The term protective treatment includes active and passive films such as: anodic film, chemical conversion coatings, metal spray coatings, chromated primers, enamel top coats, corrosion inhibiting and protective compounds.

This statement is intended to summarize the most important requirements and most outstanding perculiarities, if applicable, and outline how the treatment is to be used.

A1 - Chromic Acid Anodic Coating (sealed) - used on non clad aluminium detail parts as a corrosion protection barrier coating and a base for application of F19 primer. As an option clad aluminum, details may also be chromic acid anodized. The coating is non conductive and the standard thickness is from 0.00005 to 0.0003 inches, 50% of which is growth and 50% is penetration - this is standard for all anodic coatings. This coating is not used for high-strength metal-to-metal bonding (HSMTMAB) at de Havilland.

A2 - Sulphuric Acid Hard Anodic Coating (sealed) - used on bare and machined aluminum detail parts where a good wear resistant coating is required. It is usually used in conjunction with a dry film lubricant C3 coating applied on the adjoining surface for lightly loaded sliding or oscillating or rotating applications. This coating is not recommended for point or line loading because spilling of the coating due to substrate yielding. The standard coating thickness is 0.0005 to 0.0045 inches.

A3 - Sulphuric Acid Anodic Coating - used as:

Appearance items for clad and bare aluminum detail parts as a colorless decorative, wear resistant corrosion barrier coating on items located in view of passenger or crew.

Corrosion barrier coating and base for F19 primer for aluminum castings, which due to high alloying content may be susceptible to pitting during anodizing in chromic acid. Standard coating thickness in 0.0001 to 0.001 inches. This coating is not used for HSMTMAB.

A4 - Phosphoric Acid Anodic Coating (BAC 5555) - used as an anchor coating for high strength metal-to metal adhesive bonding primer e.g., BR127 for all aluminium alloy substrates.

A5 -Boric Acid/ Sulphuric Acid (Anodic Coating Sealed) - used on clad and non clad aluminum detail parts as an anodic coating replacement / substitution for A1 chromic acid anodic coating.

C1 - Chemical (Chromate) Conversion Treatment - used for clad aluminum detail parts as a pretreatment to reduce susceptibility to filiform and general corrosion and as a base for application for F19 chromated epoxy primer. C1 is also used in specific areas of machined aluminum parts only where conductivity is required (C1 meets MIL-C-5541 Class 3). Facilities processing skins have to demonstrate primer adhesion to conversion coating by meeting an 80 in-lb negative impact requirement on primed and top coated test panels made from clad 0.032 inch thick, 20204-T3 aluminum. Facilities processing other parts have to meet wet tape adhesion test.

C2 - Manganese Phosphate Chemical Conversion Treatment - used for ferrous detail parts as a pretreatment for application of dry film lubricant (C3) to enhance adhesion and together with the dry film lubricant provide a barrier type corrosion protection in light corrosion environments.

C3 - Dry Film Lubricant - is an oven cured Molybdenum Disulfide lubricant for use on metal detail parts where wet lubricants cannot be used because of potential contamination with dust, grit, or other sharp solids which when combined with grease will form a grinding compound. Only one surface, which exposes the largest coated surface area should be coated with the dry film lubricant. Standard coatings are good up to 750 degrees F. At present de Havilland uses Dow Corning Molykote 106 where C3 is specified. The design criterion for C3 is that the product has to meet a wear life of 70 hours obtained on a Mcmillan Wear Tester. Products meeting the requirements of MIL-L-8937 or MIL-L-25504 in addition to the wear test would be suitable for C2 designation.

C4 - Dichromate Treatment - for magnesium alloys C4 is used on instrument back-up panels for the purpose of corrosion protection and as a base for F19 primer.

C5 - Zinc Phosphate - is a phosphate conversion coating used on cadmium plated steel parts for the purpose of providing an adhesive base for subsequent treatment such as (C3) dry film lubricants. Products meeting the requirements of MIL-P-16232 Type Z would be suitable for C5 designation.

C7 - Dry Film Lubricant - Air cured - wear and fluid resistant such as Molykote 321. This material is specified in the Production Process Standard (PPS) as a touch-up/repair coating for damaged C3. However, C7 may be specified on the drawing if the need arises.

C8 - Dry Film Lubricant - Air cured wear and corrosion resistant dry film lubricant such as Molykote 3402. This material is used as a maintenance material for the DHC-8 Series 100, 200 and 300 on the Nibron coated flap tracks. Products meeting the requirements of MIL-L-23398 would be suitable for C8 designation.

C9 - Surface Treatment of CRES - used as passivation cleaning treatment for stainless steels. This treatment can involve chemical passivation (QQ-P-35) or mechanical passivation/cleaning treatment which may involve either glass bead blasting or stainless wire brush to remove the heat treatment discoloration.

E1 - Cadmium Plating - is used as an alternative sacrificial coating on ferrous parts for materials heat treated 180-200 KSI and below, except the so called “critical” primary structural parts that are under sustained tensile stress during service, such as wing to fuselage and wing to nacelle attachment fittings and pressurized section fuselage door stops, etc. The standard coating for ferrous alloys is M2 Ion Deposited Aluminum. The use of cadmium plating is divided as follows:

i. Up to and including 125-145 KSI, cadmium plate may be used as an uncontrolled substitute for M2

ii. 150-170 KSI and 180-200 KSI, cadmium plate may be specified as an alternative to M2 provided a note is added to the drawing requiring embrittlement relief treatment to PPS 30.04, 30.06 or 30.08 as applicable

iii. 200-220KSI and above requires M2 Class X, Type II

E2 - Chromium Plating - is used to resist wear on steel and stainless steel surfaces. Chromium plating reduces fatigue strength of the above materials as much as 50%. The usual reduction is around 30%. Because of micro-cracking the corrosion resistance is low on steel parts.

E3 - Nickel Plating - (electro deposited) is used usually as a corrosion resistant coating on ferrous alloys to be coated over with hard chrome or decorative chrome. As an underlay for chromium plating, the standard plating thickness is 0.001-0.003 inches. For decorative applications ‘t’ is 0.0008-0.0010 inches. Electro-deposited coatings depending on the type of bath used, exhibit a tensile residual stress range from 500 to 30000 psi. Electro-deposited nickel strike coating is used as an underlay for cadmium plating on stainless steels to prevent blistering of the cadmium.

E4 - Nickel Plating - (electroless deposits) is used as a wear resistant coating and for corrosion resistance. As deposited coating hardness is 450-550 DPH. Baking for one hour at 700 degrees F, raises the coating hardness to 950-1100 DPH with a Taber wear index close to that of chrome plating. Thickness is 0.0009 - 0.0011 inches. Plate adhesion is not as good as electro deposited nickel plate.

E5 & E6 Chromium Plating - Decorative dull satin and bright satin-used on appearance items made from non-corrosion resistant steel.

F20 - Lacquer Cellulose Nitrate Pigmented - is a quick drying pigmented top coat paint used for touch-up of damaged baking enamel (F5) painted parts and also as a decorative coating for metallic parts located in the aircraft interior such as flight deck areas where quick back to work access is required.

F5 - Enamel Baking Pigmented - used on aircraft interior metal appearance item such as flight compartment instrument panel.

F13 - Compound Corrosion Preventive

Grade 1 - Hard Film (MIL-C-16173 Gr.1) - used undiluted on interior of tubes where plating and other forms of corrosion protection cannot be successfully deposited. It is applied by fill and drain method.

Grade 2 - Soft Film (MIL-C-16173 Gr. 2) - used undiluted to cover fastener shanks as a barrier to corrosion. It is also used in the thinned condition on the inside of Magneformed tubes.

Grade 3 - Water Displacing Thin Film (DHMS C4.12) - used in the 'as received' condition as a final or last corrosion preventive treatment for designated areas of the aircraft or major assemblies. It is an airless spray applied when the area to be treated is totally finished with all of the systems installed.

Grade 4 - Water Displacing Medium Film (BMS 3-26 Type I) - used in the same areas as Grade 3 except where a better corrosion resistance is required than that afforded by Grade 3.

F14 - Primer - For Solvent Sensitive Parts - used as a pretreatment primer for solvent sensitive parts such as polycarbonate which require the application of solvent containing primers (F19) and top coats (F24).

F16 - Compound - Jointing, Corrosion Preventive, Chromated - used as a faying surface corrosion inhibitor involving aluminum parts and fasteners.

F19 - Primer-Epoxy (DHMS C4.01)

Type II Chromated - This fluid resistant primer is the standard primer used on all metallic aircraft parts. This primer must pass a negative impact test of (1) 40 in.lb., when applied on an alodined (C1) or anodized (A1), test panel of 0.032" thick clad or bare 2024-T3 sheet, and (2) 80 in.lb., when tested on above test panel (1) +polyurethane top coat i.e., C1+F19+F24 or A1+F19+F24.

Type III Non Chromated - This fluid resistant primer is the standard primer used on all non-metallic parts where a primer is required. Except for chromate content and associated corrosion resistance properties, this primer has the same characteristics as the chromated Type II primer.

F21 - Primer - Integral Fuel Tank

Type I - Polyurethane (DHMS C4.06) embodies the requirements of MIL-C-27725B Type II, Class B.-used as the standard fuel tank coating.

Type II - Epoxy (BMS 10-20) - used as a fuel tank coating in areas where additional protection is required. It is always used as the first coat because of better recoatability. Then followed by a coat of Type I primer. Type I primer has better resistance to corrosion caused by the by-products of microbial growth.

F22 - Enamel - Epoxy (DHMS C4.11) - used as a top coat enamel for interior sur-

faces where UV degradation is not a problem and to reduce the use of isocyanate materials. Such as the fuselage interior treatment below the floor with aluminum color epoxy enamel.

F23 - Primer - Epoxy, Urethane Compatible Corrosion Resistant, Intermediate - (DHMS C.4.18 Type III) - this primer is used as an intermediate primer for painting of aircraft exterior surfaces where the skins are primed in the detail stage with F19.

F24 - Enamel - Polyurethane, Pigmented and Clear, Gloss, Semi-Gloss and Flat

Type 3 - For aircraft interiors of pre-1990 design. For a new design this enamel may be used for aircraft interiors other than the passenger compartment, such as a baggage compartment, where less flammability requirements are less stringent.

Type 4 - Highly flexible and impact resistant - used for aircraft exteriors decorative paint systems and where F24 top coat is required on either detail parts or assemblies.

Type 6 - Highly Flexible and Rain Erosion Resistant - used for aircraft exterior decorative paint systems and where F24 top coat is required on either detail parts or assemblies. The only difference between Type 4 and Type 6 is that Type 6 is tested at the Boeing Whirling Arm facility for rain erosion.

F28 - Enamel-Epoxy and Urethane Powder Coatings (DHMS C4.10) - used for high wear areas such as door handles, airstair door handrails and flight control wheel.

Type I-Electrostatic spray application (coating thickness 0.002-0.005 inches).

Type II-Fluidized bed application (coating thickness 0.008-0.012 inches).

i. Class 1 - High gloss

ii. Class 2 - Semi-gloss

iii. Class 3 - Low gloss

F29 - Enamel - Polyurethane, Teflon Filled, Abrasion Resistant - used on parts where light rubbing or sliding occurs in service.

F31 - Enamel - Polyurethane, Anti-Static (High Resistance Type), Black - used on exterior surfaces of composite parts to bleed off static electricity charges. This enamel is formulated in addition to the anti-static properties to resist erosion and UV degradation by being polyurethane.

F32 - Sealant - Clear Resin Polyurethane or Epoxy - used to seal voids and pinholes in composite air ducts against air leakage.

F33 - Compound-Surface Finishing Sandable - used to fill pinholes in composite parts which will have one surface visible to the aircraft exterior or interior and will receive a top coat enamel.

F35 - Coating - Epoxy, High-Build Clear, Fuel Vapor Barrier - used as a barrier coat on the dry side of the fuel tank bulkheads to prevent minor fuel seepage that could form a combustible mixture.

F37 - Enamel - Polyurethane Pigmented and Clear - Standard Flexibility - used in areas where high resistance to Skydrol type hydraulic fluids is required. High potential leak areas. This enamel can be used on metallic and composite parts. F37 has a higher pencil hardness number than F24 and therefore it does not soften as much during exposure to Skydrol type fluids.

F38-Coating - Fireproof, Intumescent - used to protect materials that are not fire resistant such as aluminum parts in fire zone areas. The as applied dry film coating thickness shall be 0.030-0.035 inches. Flame exposure tests are required to confirm that the part with the coating passes the fire resistance requirements.

F39 - Coating - Mar Resistant, Decorative (MIL-P-20689) - used for handles etc. that require a nonslip gripping surface which is pleasant to the touch.

i. Type I - General purpose dip coat compound (State dry film thickness)

ii. Type II- General purpose spray coat compound (State dry film thickness)

iii. Type III- General purpose roller coat compound (State dry film thickness)

iv. Class 1- General Use

v. Class 2 - Fungus Resistant

F41 - Coating-Epoxy, Conductive Anti-Static (BMS 10-21 Type I or Type III) - used on forward facing composite fairings etc., that may generate a static charge and cause communication difficulties. F41 is applied to the detail parts after pinhole filling. After a designated drying time and conductivity test, the F41 is coated over with F19 Type 3. Provisions must be made to ground the coating to the structure.

F42 - Enamel - Polyurethane, Interior Decorative (BMS 10-83 Type II) - used in the aircraft interior on non-metallic and also metallic parts that require painting in order to achieve color match with surrounding items. This enamel is authorized for use only on small part in the passenger compartment and for larger parts in the flight compartment, lavatory and wardrobe. Each application of this material must be tested on the same substrate construction as the part and pass a 60 second vertical burn test in accordance with FAR 25.853 (a) Amend. 25-66.

F43 - Coating - Epoxy, Conductive Anti-Static (BMS10-21 Type II) - used on radomes as static charge dissipation coating. The use of this coating is the responsibility of the radome manufacturer.

F44 - Primer - Acrylic, clear for Ultem Thermoplastics - used as a primer on Ultem parts before coating over with a top coat enamel such as: F42.

F45 - Primer - Epoxy, High Temperature - (purchased as a proprietary product) - used on metallic detail parts exposed to temperatures up to 500 deg. F. and which require a corrosion resistant primer. Pretreatment for aluminum is either A1 or C1. Pretreatment for non corrosion resistant steels is M2.

F46 - Primer - Epoxy, Corrosion Inhibiting Adhesive (BMS 5-89) - a modified epoxy phenolic corrosion inhibiting primer used: (a) to protect the substrate and bond line in a high strength metal-to-metal bonded assembly and (b) to provide additional corrosion and abrasion protection to chem milled skins in potentially wet areas e.g., under floor skins.

M**1 - Coating - Aluminum Metal Spray** - used as a corrosion protective coating nonferrous parts which require some resistance to mechanical abuse (0.004 inches thick) and which cannot be cadmium plated (ingress of plating solution through pinhole which occurs during welding shut the last went hole) or where IVD treatment would not be suitable (too thin to give mechanical damage protection). An example of above is engine mount tubes.

M2 - Coating - Ion Vapor Deposited (IVD) Aluminum - used as a health and safety and environmentally safe corrosion protective coating suitable for application on all ferrous and nonferrous alloys. The IVD process and its pretreatments are non-embrittling and therefore parts IVD treated do no require embrittlement relief.

i. Class 1 - 0.001- 0.002 inches thick

ii. Class 2 - 0.0005 - 0.0009 inches thick

iii. Class 3 - 0.0003 - 0.0005 inches thick. Recommended for parts which will have interchangeability with E1.

iv. Type I - As coated. Intended for appearance item parts that need the aluminum look.

v. Type II - With supplemental chromate treatment (Alodine). Used for all parts requiring corrosion resistance.

TABLE 1 PROTECTIVE TREATMENT COATING SYSTEM

PROTECTIVE TREATMENT		PPS	MATERIALS SPECIFICATION	PROTECTIVE COMPOUND
METHOD	CODE			
ANODIZING	A1	32.03		ANODIZE, CHROMIC ACID
	A2	32.04		ANODIZE, SULPHURIC ACID, HARD
	A3	32.05		ANODIZE, SULPHURIC ACID COLOUR AND COLOURLESS
	A4	BAC5555		ANODIZE, PHOSPHORIC ACID FOR STRUCTURAL BONDING
	A5	32.13		ANODIZE, BORIC ACID-SULPHURIC ACID
CHEMICAL SURFACE TREATMENT	C1	32.01		CHEMICAL CONVERSION COATING OF ALUMINUM
	C2	32.06		MANGANESE PHOSPHATE
	C3	32.09		DRY FILM LUBRICANT OVEN CURED
	C4	32.07		CONVERSION COATING OF MAGNESIUM
	C5	32.08		ZINC PHOSPHATE
	C7	32.09		DRY FILM LUBRICANT, AIR CURE, FLUID RESISTANT
	C8	31.09		DRY FILM LUBRICANT, AIR CURE, CORROSION RESISTANT
	C9	31.05		SURFACE TREATMENT OF CRES (CHEMICAL AND MECHANICAL PASSIVATION)
PLATING	E1	33.01		CADMIUM PLATING (FOR HEAT TREATMENT <=180 - 200 KSI)
	E2	33.04		CHROME PLATING, HARD
	E3	33.03		NICKEL PLATING, ELECTRO DEPOSITED
	E4	33.06		NICKEL PLATING, ELECTROLESS
PLATING	E5	33.07		CHROME PLATING, DECORATIVE DULL SATIN FINISH
	E6	33.07		CHROME PLATING, DECORATIVE, BRIGHT SATIN FINISH

TABLE 1 PROTECTIVE TREATMENT COATING SYSTEM

PROTECTIVE TREATMENT		PPS	MATERIALS SPECIFICATION	PROTECTIVE COMPOUND
METHOD	CODE			
	E7	33.05		COPPER PLATING
METALIZING	M1	24.01		ALUMINUM FLAME SPRAYING
	M2	24.02		ION VAPOUR DEPOSITED ALUMINUM
ORGANIC COATINGS AND FINISHES	F2	34.01	TT-L-20 AND TT-L-32	LACQUER NITROCELLULOSE FLAT/GLOSS, PIGMENTED
	F5	34.09	DHMS C4.07	BAKING ENAMEL
	F13 GR.1	16.01	MIL-C-16173 GRADE 1	CORROSION PREVENTIVE COMPOUND, HARD
	F13 GR.2	16.01	MIL-C-16173 GRADE 2	CORROSION PREVENTIVE COMPOUND - SOFT
	F13 GR.3	16.01	DHMS C4.12	CORROSION PREVENTIVE COMPOUND - WATER DISPLACING, CLEAR
	F13 GR.4	16.01	BMS 3-26 TYPE I	CORROSION PREVENTIVE COMPOUND, HEAVY DUTY
	F14	34.07	BMS 10-83 TYPE I	PRIMER URETHANE FOR POLYCARBONATES
	F16	34.05		JOINTING CORROSION PREVENTIVE, CHROMATED
	F17	34.06		PRIMER, POLYESTER MAGNESIUM ALLOYS
	F19 TYPE II	34.08	DHMS C4.01 TYPE II	PRIMER, EPOXY CHROMATED
	F19 TYPE III	34.08	DHMS C4.01 TYPE III	PRIMER, EPOXY, NONCHROMATED
	F21 TYPE I	21.03	DHMS C4.06	PRIMER, INTEGRAL FUEL TANK POLYURETHANE
	F21 TYPE II	21.03	BMS 10-20	PRIMER, INTEGRAL FUEL TANK EPOXY
ORGANIC COATINGS AND FINISHES	F22	34.41	DHMS C4.11	ENAMEL, EPOXY
	F23	34.16	DHMS C4.18 TYPE III	PRIMER, EPOXY, URETHANE COMPATIBLE
	F24	34.03	DHMS C4.04 TYPE IV & VI	ENAMEL POLYURETHANE

TABLE 1 PROTECTIVE TREATMENT COATING SYSTEM

PROTECTIVE TREATMENT		PPS	MATERIALS SPECIFICATION	PROTECTIVE COMPOUND
METHOD	CODE			
	F28 CL.1	34.35	DHMS C4.10	POWDER, EPOXY COATING, HIGH GLOSS
	F28 CL.2	34.35	DHMS C4.10	POWDER, EPOXY COATING, SEMI-GLOSS
	F28 CL.3	34.35	DHMS C4.10	POWDER, EPOXY COATING, LOW GLOSS
	F29	34.13	DHMS C4.08	ENAMEL, POLYURETHANE TEFLON FILLED
	F31	34.15	DHMS C4.13 TYPE I	COATING, POLYURETHANE, ANTI STATIC, HIGH RESISTANCE
	F32	21.05		SEALANT, EPOXY OR POLYURETHANE
	F33	34.34	DSC 206 1/-2	COMPOUND, SURFACE FINISH SANDING SURFACER
	F35	16.11	DPM 3430 (DOUGLAS STOCK CODE)	ENAMEL, EPOXY FUEL BARRIER COATING
	F37	34.03	DHMS C4.04 TYPE II	ENAMEL, POLYURETHANE, HIGH HYDRAULIC FLUID RESISTANT
	F38	16.12		COATING, FIREPROOF INTUMESCENT
	F39 CL.1	16.10	MIL-P-20689	COATING, MAR RESISTANT GENERAL USE
	F39 CL.2	16.10	MIL-P-20869	COATING, MAR RESISTANT FUNGUS RESISTANT
	F41	34.19	BMS 10-21 TYPE I	COATING, EPOXY CONDUCTIVE ANTI-STATIC
ORGANIC COATINGS AND FINISHES	F42	34.20	BMS 10-83 TYPE II	ENAMEL, POLYURETHANE INTERIOR DECORATIVE
	F43	34.19	BMS 10-21 TYPE II	COATING, EPOXY CONDUCTIVE ANTI-STATIC (FOR RADOMES)
	F44	34.22	BAC5755	PRIMER, ACRYLIC CLEAR FOR ULTEM THERMOPLASTICS (P65Y7)
	F45	34.08		PRIMER, EPOXY HIGH TEMPERATURE

TABLE 1 PROTECTIVE TREATMENT COATING SYSTEM

PROTECTIVE TREATMENT		PPS	MATERIALS SPECIFICATION	PROTECTIVE COMPOUND
METHOD	CODE			
	F46	PPS 34.44	BMS 5-89 (BR-127)	PRIMER, CORROSION INHIBITING, ADHESIVE (FOR CHEM MILLED SKINS IN WET INTERIOR AREAS)
BUFFING / POLISHING	SF11	27.06		MIRROR BRIGHT, BUFFED FINISH
	SF21	27.06		BRIGHT, STAIN FINISH
	SF22	27.06		SEMI-BRIGHT, SATIN FINISH
	SF24	27.06		COARSE, SATIN FINISH
	SF32	27.06		MEDIUM, BRUSH FINISH

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
ALUMINUM ALLOYS	DRY AREAS - GENERAL INTERIOR DETAILS	
	SHEET ALCLAD	
	2024 AND 7075	C1 + F19
	INSTRUMENT PANEL	C1 + F5
	WHEN ALCLAD IS REMOVED BY MACHINING OR CHEM. MILLING FROM ONE OR BOTH SIDES	A1 + F19
	SHEET BARE	
	3003, 5052, 6061 AND 6013	C1 + F19
	PLATE, BAR, ROD, FORGINGS AND EXTRUSIONS	
	- ALL ALLOYS	A1 + F19
	CASTINGS	
	- ALL ALLOYS	A3 + F19
	- WHERE ELECTRICAL CONDUCTIVITY IS REQUIRED IN SPECIFIED AREAS	C1 + F19
	FUSELAGE	
	DETAILS BEFORE HIGH STRENGTH METAL TO METAL BONDING	
	SKINS	
	- ALL OVER	A4 + F46
	WAFFLE DOUBLERS AND STRINGERS	
	- ALL OVER	A4 + F46
	SKIN ASSEMBLY, AFTER BONDING	
	- ALL OVER	F19

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
ALUMINUM ALLOYS	DETAILS NON-BONDED SKINS (CLAD)	
	NON CHEM MILLED- INSIDE / OUTSIDE FACE	C1 + F19
	- CHEM MILLED (INSIDE FACE	
	- BELOW FLOOR AREA	
	ALL OVER	A1 + F46 + F19
	- ABOVE FLOOR AREA	
	ALL OVER	A1 + F19
	FORMED FRAMES AND INTERCOSTALS	
	- ALL OVER	C1 + F19
	STRINGERS AND MACHINED FRAMES	
	- ALL OVER	A1+F19
	ELECTRICAL JUNCTION BOXES	
	- ALL OVER	C1 + F19
	- ALL INTERIOR SURFACES	F22 WHITE
	SEAT TRACKS (DETAIL)	
	- ALL OVER	A1 + F19 + F24 ALUMINUM
	HORIZONTAL AND VERTICAL STABILIZER BONDED CONSTRUCTION DETAILS BEFORE BONDING	
	- ALL OVER	A4 + F46
	ASS'Y AFTER BONDING	
	- ALL OVER	F19
	NON-BONDED DETAILS	
	- ALL OVER	
	CLAD	C1 + F19
	BARE	A1 + F19

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
ALUMINUM ALLOYS	NON BONDED CONSTRUCTION	
	CLAD SKINS - ALL OVER	F19
	CHEM MILLED OR MACHINED SKINS (OUTSIDE REMAINS CLAD)	
	OUTSIDE FACE	A1 + F19
	INSIDE FACE	A1 + F19 + F24 ALUMINUM
	STRUCTURAL TUBES USE ONLY - 6061 ALLOY	
	CONTROL ROD WITH MAGNEFORMED ENDS	
	BEFORE MAGNEFORMING	
	- DETAIL PARTS	A1
	AFTER MAGNEFORMING	
	WITH OPEN END FITTINGS	
	- EXTERIOR	F19
	- INTERIOR	F13 GR. 2
	WITH CLOSED END FITTINGS	
	- EXTERIOR	F19
	- INTERIOR	NO FINISH
	CONTROL RODS WITH PINNED ENDS	
	BEFORE PINNING	
	DETAIL PARTS	
	AFTER PINNING	
	WITH OPEN END FITTINGS	
	- EXTERIOR	F19
	- INTERIOR	F13 GR.2
	WITH CLOSED END FITTINGS	
	- EXTERIOR	F19
	- INTERIOR	NO FINISH
ALUMINUM ALLOYS	FUSION WELDED TUBES	
	BEFORE WELDING	NO FINISH
	- DETAIL PARTS	NO FINISH
	TUBES HERMETICALLY SEALED BY WELDING	
	- INTERIOR	NO FINISH
	- EXTERIOR	A1 + F19
	TUBES WITH OPEN ENDS (INTERIOR AND EXTERIOR)	A1 + F19

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
	WET AREAS (FUEL TANK) GENERAL INTERIOR DETAILS SHEET ALCLAD 2024 AND 7075 WHEN ALCLAD IS REMOVED BY MACHINING OR CHEM MILLING FROM ONE OR BOTH SIDES SHEET BARE 3003, 5052, 6061, AND 6013 PLATE, BAR, ROD, FORGING AND EXTRUSIONS ALL ALLOYS CASTINGS - ALL ALLOYS - WHERE ELECTRICAL CONDUCTIVITY IS REQUIRED IN SPECIFIC AREAS	 C1 + F21* A1 + F21* C1 + F21* A1 + F21* A3 + F21* C1 + F21
ALUMINUM ALLOYS	WING DETAILS BEFORE HIGH STRENGTH METAL- TO- METAL BONDING (FUEL TANK AREAS) WING SKINS, UPPER AND LOWER, BOTH FACES STRINGERS - ALL OVER DOUBLERS - BOTH FACES NON FUEL TANK AREAS WING SKINS, UPPER AND LOWER BOTH FACES STRINGERS - ALL OVER DOUBLERS BOTH FACES	 A4 + F46 A4 +F46 A4 +F46 A1 A4 + F46 A4 + F46

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
	SKIN ASSEMBLY AFTER BONDING	
	INSIDE FACE	F21 TYPE I
	OUTSIDE FACE	F19 TYPE II
	DETAILS NON-BONDED CONSTRUCTION	
	BARE SKIN OR CLAD SKIN CHEM MILLED OR MACHINED	
	FUEL TANK AREAS	
	WING SKINS UPPER AND LOWER	
	- INSIDE FACE	A1 + F21 TYPE II
	- OUTSIDE FACE (EXCEPT FUEL TANK LADDER PLATE)	A1 + F19 TYPE II
	STRINGERS	
	- ALLOVER	A1 + F21 TYPE II
ALUMINUM ALLOYS	DOUBLER (EXTERIOR)	
	- ALL OVER (CLAD BOTH FACES)	A1 + F19
	NON FUEL TANK AREAS	
	WING SKINS, UPPER AND LOWER:	
	- INSIDE FACE	A1 + F21 TYPE II
	- OUTSIDE FACE (EXCEPT DRY BAY LADDER PLATE)	A1 + F19 TYPE II
	STRINGERS	
	- ALL OVER	A1 + F21 TYPE II
	DOUBLER (EXTERIOR)	
	ALL OVER (CLAD BOTH FACES)	A1 + F19
	SKIN ASSEMBLY (SKIN STRINGER ASSEMBLY)	
	- INTERIOR FACE ONLY	F21 TYPE 1
	SPLICE PLATES	M2 TYPE II, CLASS 1 + F21 TYPE II + F21 TYPE I
	- ALL OVER	

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
	FUEL TANK TOP CLOSURE COVERS ALL OVER EXCEPT FAYING SURFACES - EXTERIOR SURFACES AND EDGES - INTERIOR EXCEPT FAYING SURFACES - FAYING SURFACES	 A1 + F19 A1 + F21 C1 ONLY
	FUEL TANK AND DRY BAY LADDER PLATE (INTEGRAL WITH WING SKIN) FAYING SURFACES (COVER TO LADDER PLATE)	 C1 ONLY
MAGNESIUM ALLOYS	SHEET INSTRUMENT BACK-UP PANEL	 C4 + F5 ALL OVER
BRASS, BRONZE, COPPER AND NICKEL ALLOYS	NOT IN CONTACT WITH DISSIMILAR MATERIAL	
	IN CONTACT WITH DISSIMILAR MATERIAL	E1 ALL OVER + F19 ON FAYING SURFACES
	BUS BAR	E1
CARBON AND LOW ALLOY STEELS	SHEET AND MACHINED PARTS NORMALIZED CONDITION OR HEAT TREAT UP TO 150-175 KSI HEAT TREAT 150-170 KSI AND ABOVE	 E1 + F19 OR M2 + F19 M2 (TYPE II CLASS X) + F19
	STRUCTURAL TUBES MAGNEFORMED TUBES BEFORE MAGNEFORMING - EXTERIOR - INTERIOR	 E1 NO FINISH

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
	MAGNEFORMED ASSEMBLY - EXTERIOR - INTERIOR	 F19 NO FINISH
	BEFORE WELDING DETAIL PARTS	 NO FINISH
	AFTER WELDING TUBES HERMETICALLY SEALED BY WELDING	 (M1 OR M2 (TYPE II CL X)) + F19
	- EXTERIOR - INTERIOR	F19 NO FINISH
CARBON AND LOW ALLOY STEELS	TUBES WITH OPEN ENDS - EXTERIOR - INTERIOR	 E1, M1 OR M2 (TY II CL. X) + F19 F13 GR.1
CORROSION RESISTANT STEEL	TYPES: 301, 303 ALL TYPES, 304, 321, 347 431, 17-4PH, 17-7PH, 15-5PH, CUSTOM 455, PH13-8 MO	

TABLE 2 STANDARD PROTECTIVE TREATMENT FOR NON-DECORATIVE DETAIL PARTS

MATERIAL	DESCRIPTION	PROTECTIVE TREATMENT CALL-OUT
	<u>MACHININGS, SHEET PARTS AND CASTINGS</u> WHEN **NOT** IN CONTACT WITH DISSIMILAR METALS - MILD DRY ENVIRONMENT - SEVERE (WET) ENVIRONMENT WHEN **IN** CONTACT WITH DISSIMILAR METALS - MILD (DRY) ENVIRONMENT - SEVERE WET ENVIRONMENT	C9 C9 + E3 +E1 +F19 OR C9 +E3 + M2 CLASS 2, TYPE II + F19 C9 +F19 C9 + E3 + E1 + F19 OR C9 + M2 CLASS 2, TYPE II + F19
TITANIUM ALLOYS AND COMMERCIALLY PURE TITANIUM	<u>EXTERNAL SKINS</u> - ALL OVER ALL OTHER PARTS - WHEN NOT IN CONTACT WITH DISSIMILAR METALS, BUT IN CONTACT WITH OTHER TITANIUM PARTS - WHEN IN CONTACT WITH DISSIMILAR METALS	C1 + F19 F19 ON FAYING SURFACES DHMS S3.06 TYPE 1, CLASS C ON FAYING SURFACES

TABLE 3 STANDARD PROTECTIVE TREATMENT FOR AIRCRAFT SYSTEMS

AIRCRAFT SYSTEM PARTS	PROTECTIVE TREATMENT CALLOUT
CONTROL CABLES	
STAINLESS STEEL	NO FINISH
CARBON STEEL (TIN OVER ZINC PLATED)	MIL-G-81322
BATTERY STORAGE AREA	
FOR NI-CAD OR LEAD ACID BATTERIES 1 TO 1.5 FT. ON EACH SIDE	STANDARD PROTECTIVE TREATMENT + F24
ENGINE OIL & DE-ICING FLUID (ISOPROPYL ALCOHOL) TANKS	
5052, 6013, & 6061 ALUMINUM	
- INTERNAL	C1
- EXTERNAL	C1 + F19
TITANIUM	NO FINISH
HYDRAULIC FLUID TANKS (PHOSPHATE ESTER)	
5052 ALUMINUM	
- INTERNAL	No Finish
- EXTERNAL	No Finish
6013 & 6061 ALUMINUM	
- INTERNAL	No Finish
- EXTERNAL	C1 + F19
321 STAINLESS STEEL	C9
CP TITANIUM	No Finish
LAVATORY & GALLEY WATER TANKS	
321 STAINLESS STEEL	C9
TUBING AND PIPING SYSTEMS	
HYDRAULIC SYSTEM: HIGH AND LOW PRESSURE LINES	
6061 ALUMINUM	
- INTERIOR	NO FINISH
- EXTERIOR	C1 + F19
304 321 AND 21-6-9 STAINLESS STEEL	NO FINISH
TITANIUM	NO FINISH

TABLE 3 STANDARD PROTECTIVE TREATMENT FOR AIRCRAFT SYSTEMS

AIRCRAFT SYSTEM PARTS	PROTECTIVE TREATMENT CALLOUT
FUEL SYSTEM	
5052 ALUMINUM ALL LINES EXCEPT THOSE ON REAR SPAR	
LINES ON REAR SPAR	NO FINISH
- INTERIOR	NO FINISH
- EXTERIOR	C1 + F19
304 AND 321 STAINLESS STEEL ALL LINES ON REAR SPAR	NO FINISH
OXYGEN SYSTEM	
COPPER	NO FINISH
5052 ALUMINUM	NO FINISH
304 & 321 STAINLESS STEEL	NO FINISH
OTHER SYSTEMS, EXCEPT OXYGEN	
5052 ALUMINUM	C1
SPRINGS, COILED AND FLAT	
1075, 1095 CARBON STEEL	
- INSTALLED IN HYDRAULIC FLUID OR OIL	NO FINISH EXCEPT TEMPORARY CORROSION PROTECTION TO PPS 16.20
- INSTALLED IN OTHER AREAS	E1 OR M
FS 302, 17-7PH STAINLESS	C9
INSTALLATION AND ASSEMBLY OF HELICAL INSERTS	INSTALL WITH F13 GR.2
STATIC JOINTS BETWEEN DISSIMILAR METALS	STANDARD PROTECTIVE FINISH ON EACH PART AND FAYING SURFACE SEAL PER ESP62
BUSHINGS	
SLIP FITS	ASSEMBLE WITH F13 GR.2
PRESS OR SHRINK FIT IN ALUMINUM STRUCTURE AFTER LINE REAMING	TREAT HOLE WITH C1 & ASSEMBLE WET WITH F19 SEAL AND SEAL EDGE OF BUSHING TO STRUCTURE WITH A FILLET OF F19 OR SEALANT
PRESS OR SHRINK FIT IN ALUMINUM	ASSEMBLE WET AS ABOVE

TABLE 4 STANDARD PROTECTIVE TREATMENT FOR NON-METALLIC DETAIL PARTS

NON-METALLIC MATERIALS	PROTECTIVE TREATMENT AND DECORATIVE TREATMENT CALLOUT
GLASS AND KEVLAR REINFORCED RESIN LAMINATES	
AIRCRAFT INTERIOR	
- APPEARANCE SURFACES	F33 + F19 TYPE III + F42
- NON-APPEARANCE SURFACES	F22 * OF F19 TYPE III*
AIRCRAFT EXTERIOR	
- APPEARANCE SURFACES	
a) STATIC GENERATING AREAS	F33 + F41 + F19 TYPE III
b) OTHER AREAS	F33 + F19 TYPE III
- NON-APPEARANCE SURFACES	F22 OR F19 TYPE III*
POLYETHYLENE, NYLON, TEFLON, RUBBER (NATURAL OR SYNTHETIC)	
POLYCARBONATE	
- FOR COLOR MATCH OF AIRCRAFT INTERIOR APPEARANCE ITEMS	F14 + F19 TYPE III + F42
THERMOPLASTICS FOR THERMO-FORMING	
POLYETHERIMIDE (PEI)	F42
POLYETHER-KETONE (PEKK)	F42
ULTEM FOR COLOR MATCH OF AIRCRAFT INTERIOR APPEARANCE ITEMS	F44 + F42

TABLE 5 STANDARD PROTECTIVE TREATMENT FOR INSTALLATION OF FASTENERS

STANDARD FINISHES FOR AIRCRAFT FASTENERS	PROTECTIVE TREATMENT AND DECORATIVE TREATMENT CALL-OUT
ALL PERMANENTLY INSTALLED BOLTS SCREWS, HUCK BOLTS ETC.	
IN NON-FUEL TANK AREAS	INSTALL WET WITH F19
IN NON-FUEL TANK AREAS	INSTALL WET WITH DHMS S3.06 TYPE 1 CLASS C PER PPS 21.03
ALL REMOVABLE RIVETS	INSTALL WITH F13 GR.2 PER PPS 16.01
BARREL NUTS	INSTALL WITH F13 GR.2 PER PPS 16.01
ALL COUNTERSUNK FASTENERS IN ALUMINIUM PARTS	
MANUALLY AND DRIVAMATIC INSTALLED FASTENERS (EXCEPT COUNTERSUNK	NO FINISH

TABLE 6 DETAILED CALL-OUT FOR PROTECTIVE TREATMENT

FINAL TREATMENT	MATERIAL T0 BE TREATED	TOTAL PROTECTIVE TREATMENT CALLOUT
DRY FILM LUBRICANT C3	CARBON AND LOW ALLOY STEELS CADMIUM PLATED STEEL STAINLESS STEEL ALUMINUM ALLOYS - LIGHT DUTY - MEDIUM DUTY COPPER ALLOYS	C2 + C3 E1+ C5 + C3 C3 A1 + C3 OR A2 + C3 A2 + C3 C3
CADMIUM PLATE E1	CARBON AND LOW ALLOY STEELS STAINLESS STEEL	E1 E3 +E1 OR M2 CLASS X, TYPE II
CHROME PLATE E2	CARBON AND LOW ALLOY STEEL	SEE TABLE 6B
BAKING ENAMEL F5	CARBON AND LOW ALLOY STEEL ALUMINUM ALLOYS - CLAD - BARE MAGNESIUM (INSTRUMENT PANEL BACKUP) - ON ONE FACE - ON BOTH FACES	E1 + C5 = F5 C1 = F5 A1 = F5 C4 +F19 ALL OVER = F5 ON INDICATED FACE C4 + F5 C9 + F5
POWDER COATING	CARBON AND LOW ALLOY STEELS - INTERIOR - EXTERIOR	F28 E1 OR M2 CLASS 2, TYPE II + F28

TABLE 6 DETAILED CALL-OUT FOR PROTECTIVE TREATMENT

FINAL TREATMENT	MATERIAL T0 BE TREATED	TOTAL PROTECTIVE TREATMENT CALLOUT
POWDER COATING	ALUMINUM ALLOYS - CASTINGS - CLAD - BARE - TUBES (STRUCTURAL) - STAINLESS STEEL	 A3 OR C1 +F28 C1 + F28 A1 + F28 C1 + F28 C9 + F28
ION DEPOSITED ALUMINIUM M2	CARBON AND LOW ALLOY STEELS STAINLESS STEEL COPPER ALLOYS ALUMINUM ALLOYS	M2 CLASS X TYPE II M2 CLASS XTYPE II M2 CLASS XTYPE II M2 CLASS XTYPE II

TABLE 6 DETAILED CALL-OUT FOR PROTECTIVE TREATMENT

MATERIAL TO BE TREATED	SERVICE ENVIRONMENT	TOTAL PROTECTIVE TREATMENT CALLOUT AND/OR DRAWING NOTES
CARBON AND LOW ALLOY STEELS	LOCATED IN DRY INTERIORS OF AIRCRAFT	
	FOR STANDARD THICKNESS OF 0.0002 INCHES TO 0.0004 INCHES OF CHROME PLATE	IN BOM FINISH COLUMN:E2
	FOR HEAVY DUTY USE WITHOUT GRINDING	IN BOM FINISH COLUMN NOTE NOTES#: NOTE# E7 CHROME PLATE THICKNESS 0.0005 TO 0.0007 INCH
	FOR SPECIAL HEAVY DUTY USE WITH GRINDING	IN BOM FINISH COLUMN NOTE:# NOTES NOTE:# E2 CHROME PLATE THICKNESS 0.002 INCH MAX. AND GRIND TO SIZE
	LOCATED IN WET INTERIOR OR EXTERIOR AREAS OF AIRCRAFT	
	FOR STANDARD THICKNESS OF 0.0002 INCHES TO 0.0004 INCHES OF CHROME PLATE	IN BOM FINISH COLUMN E7 +E3 + E2 OR E4 + E2
	FOR HEAVY DUTY USE WITHOUT GRINDING	IN BOM FINISH COLUMN NOTE NOTES NOTE:# E7 +E3 + E2 CHROME PLATE THICKNESS 0.0005 TO 0.0007 INCH OR E4 + E2 CHROME PLATE THICKNESS 0.0005 TO 0.0007 INCH

TABLE 6 DETAILED CALL-OUT FOR PROTECTIVE TREATMENT

MATERIAL TO BE TREATED	SERVICE ENVIRONMENT	TOTAL PROTECTIVE TREATMENT CALLOUT AND/OR DRAWING NOTES
CARBON AND LOW ALLOY STEELS	LOCATED IN WET INTERIOR OR EXTERIOR AREAS OF AIRCRAFT FOR SPECIAL HEAVY DUTY USE WITH GRINDING	IN BOM FINISH COLUMN: NOTE # NOTES# NOTE:# E7 +E3 + E2 CHROME PLATE THICKNESS 0.002 INCH MAX AND GRIND TO SIZE OR E4 + E2 CHROME PLATE THICKNESS 0.002 INCH MAX AND GRIND TO SIZE

TABLE 7 STANDARD PROTECTIVE TREATMENT FOR DECORATIVE DETAIL PARTS

SURFACE FINISH TYPE	SURFACE FINISH CODE	MATERIAL	PROTECTIVE TREATMENT CALLOUT
BUFFED FINISH	SF11 MIRROR BRIGHT BUFFED	STAINLESS SSSSTEEL ALUMINUM	NO FINISH NO FINISH
SATIN FINISH	SF22 SEMI BRIGHT SATIN	STAINLESS STEEL ALUMINUM CARBON OR LOW ALLOY STEEL	C9 A3 E7 + E3 + E6 OR E5
	SF24 COARSE SATIN	ALUMINUM	A3
BRUSH FINISH	SF32 MEDIUM BRUSH	STAINLESS STEEL ALUMINUM CARBON OR LOW ALLOY STEEL	C9 A3 E7 + E3 + E6 OR E5

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
FUSELAGE DOOR ASS'Y (AIRSTAIR CARGO/BAGGAGE AND EMERGENCY) SEE FIGURE 1		
OUTSIDE SKIN		
- EXTERIOR FACE	STD PROTECTIVE TREATMENT IN DETAIL STAGE	NIL
- INTERIOR FACE	STD PROTECTIVE TREATMENT IN DETAIL STAGE +	F13 GR. 3
INSIDE SKIN		
- EXTERIOR FACE	STD PROTECTIVE TREATMENT IN DETAIL STAGE STD	NIL
- INTERIOR FACE	PROTECTIVE TREATMENT IN DETAIL STAGE	F13 GR. 3
INTERNAL STRUCTURE		
- ALL OVER	STD PROTECTIVE TREATMENT IN DETAIL STAGE	F13 GR. 3
- INTERIOR		
PRESSURIZED SECTION INTERIOR FRONT AND REAR PRESSURE BULKHEAD BONDED AND CHEM MILLED SKINS, FRAMES, STRINGERS, ETC.		
- ALL INTERIOR FACES	APPLY A SECOND COAT OF FR PRIMER AFTER COMPLETION OF INTERIOR ATTACHMENTS	F19

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
FRONT AND REAR PRESSURE BULKHEAD BONDED AND CHEM MILLED SKINS, FRAMES, STRINGERS, ETC.		
- ALL INTERIOR FACES	APPLY A SECOND COAT OF FR PRIMER AFTER COMPLETION OF INTERIOR ATTACHMENTS	F19
CHEM MILLED AND BONDED SKINS STRINGERS BELOW FLOOR LINE		
- ALL INTERIOR FACES	TWO SPRAY COATS OF SPRAYABLE POLYSULPHIDE RUBBER AFTER SECOND COAT OF F19	DRMS S3.06 TYPE I, CLASS E
AIRSTAIR, CARGO/BAGGAGE DOOR - SURROUNDING STRUCTURE (FIGURE 5 AND 6)		
TWO FEET AROUND DOOR OPENING	AFTER COMPLETION OF SECOND COAT OF FR PRIMER AND DHMS S3.06 TYPE I CLASS E, AND BEFORE APPLICATION OF MDICIC, APPLY ONE COAT OF ALUMINIZED EPOXY ENAMEL	F22 ALUMINIZED
FROM BILGE UP TO MID CHORD AND FROM FORWARD SIDE OF BAGGAGE COMPARTMENT BULKHEAD TO REAR PRESSURE BULKHEAD (FIGURES 5 AND 6)	SKIN, STRINGERS, FRAME, AND FLOOR SUPPORT STRUCTURE	
SKIN, STRINGERS AND FLOOR SUPPORT, STRUCTURAL AND PRESSURE BULKHEAD		
- ALL OVER		

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
ALL BELOW FLOOR FUSLAGE AREAS BETWEEN FRONT AND REAR PRESSURE BULKHEADS NOT COVERED BY ABOVE (SEE FIGS.5&6):		
- SKIN, STRINGERS, FRAME, AND FLOOR SUPPORT STRUCTURE	AFTER APPLICATION OF SECOND COAT OF f 19 AND TWO COATES OF POLYSUL-PHIDE RUBBER	F22 ALUMINIZED
MACHINED FUSELAGE FRAMES, WING PICK-UP (FIGURE 6)		
ALL EXPOSED IN-SITU INTERIOR SUR-FACES, EXCEPT WING PICK-UP BOLT HOLES AND ELECTRICAL BONDING POINTS		F22 ALUMINIZED
FUSELAGE TO WING FAIRING (FIGURE 5)		
FUSELAGE SKIN UNDER FAIRING		
EXTERIOR FACE	TO BE APPLIED BEFORE INSTALLATION OF FAIRING SUPPORT STRUCTURE	F37 GRAY
AREAS SUSCEPTABLE TO HYDRAULIC FLUID SPILLAGE AND POOLING	TO ABOVE TREATMENT FIN-ISH, ADD TEFLON SPRAY COATING	DSC 216-1 TO PPS 16.24
DORSAL FIN (FIGURE 5)		
FUSELAGE SKIN UNDER DORSAL FIN		
EXTERIOR FACE		F37 GRAY
NOSE LANDING GEAR WELL		
WHEEL WELL SKIN (FIGURES 8 AND 9)		
EXPOSED FACE		F24 WHITE

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
AFTER BONDING OR FABRICATING DOOR INTERIOR SKIN		
EXPOSED FACE		F19 + F24 WHITE
AFTER BONDING OR FABRICATING DOOR		
EXTERIOR SKIN		
EXPOSED FACE		F19
ALL ABOVE WELL INTERIOR SURFACES (FIGURE 1 AND 3)		F13 GR. 3
FUSELAGE PRESSURIZED SECTION INTERIOR AND EXTERIOR AREAS		
FRONT PRESSURE BULKHEAD (FIGURES 1 AND 3)		
PRESSURE AND NON PRESSURE SIDE		F13 GR. 3
REAR PRESSURE BULKHEAD (FIGURES 1, 2, AND 3)		
PRESSURE SIDE		F13 GR. 3
NON PRESSURE SIDE (FIGURE 8)		F24 WHITE
STATION X-23.00 TO REAR PRESSURE BULKHEAD BELOW FLOOR AREA (FIGURES 1 AND 2)		
SKIN INSIDE FACE AND FLOOR SUPPORT STRUCTURE AND INTERIOR FACE OF NOSE WHEEL WELL WALL		F13 FR 3

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
SEAT TRACKS		
AFTER INSTALLATION OF SEAT TRACKS WITHIN TEN FOOT RADIUS OF ENTRANCE DOOR	APPLY TAPE DSC-91-15 TO SEAT TRACK AREAS CONTACTED BY FLOOR PANELS	
AFTER INSTALLATION OF SEATS INSIDE TRACK GROOVE		F13 GR. 3
REAR FUSELAGE (NON PRESSURIZED SECTION), TAIL CONE, VERTICAL AND HORIZONTAL STABILIZERS		
REAR FUSELAGE		
REAR PRESSURIZED BULKHEAD TO VERTICAL STABILIZER SPAR BULKHEAD ENCLOSING THE AIR CYCLE MACHINE (FIGURES 8 AND 11)		
ALL OVER INSIDE FACE OF SKIN, STRINGERS AND SPAR BULKHEAD FACES INSIDE THE AIR CYCLE MACHINE COMPARTMENT		F24 WHITE
TAIL CONE (WITH APU OPTION)		
ALL OVER INSIDE FACE		F24 WHITE
REAR PRESSURE BULKHEAD TO SKIN ATTACHMENT AREAS (FIGURES 1 AND 4)		
ON THE UNPRESSURIZED SIDE AND INSIDE BOTTOM OF REAR FUSELAGE SKIN		F13 GR. 3

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
HORIZONTAL STABILIZER AND ELEVATOR ASSEMBLY		
HORIZONTAL TO VERTICAL STABILIZER ATTACHMENT TO FITTINGS		
ELEVATOR CENTER HINGE AND OVER TRAVEL LIMIT STRUCTURE		F13 GR. 3
HORIZONTAL STABILIZER FRONT AND REAR SPAR EXTERIOR FACES		F13 GR. 3
ALL INTERIOR SURFACES		
VERTICAL STABILIZER - ASSEMBLY		
TOP WEB IMMEDIATELY UNDER HORIZONTAL STABILIZER (FIGURE 4)		
- EXTERIOR FACE		F13 GR. 3
BOX ASSEMBLY (FIGURE 4)		
BOTH FACES OF FRONT MID AND REAR SPARS AND INSIDE SURFACE OF SKIN D - NOSE		
RUDDER		F13 GR. 3
INTERIOR SURFACES		
WING NACELLE MAIN LANDING GEAR WELL		
ALL INTERIOR SURFACES OF SKIN, STRINGERS, MACHINED PARTS, ETC.		F24 WHITE
-		
AFTER BONDING OR FABRICATION - DOOR INTERIOR SKIN EXPOSED SURFACES		F24 WHITE

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
NACELLE TO WING ATTACHMENT FITTINGS		
ALL EXPOSED SURFACES, EXCEPT BOLT HOLES		F24 GRAY
SPAR FRONT AND REAR WING BOX ASSEMBLY AND REAR SPAR SHROUD (FIGURE 7)		
WING TO FUSE, WING TO NACELLE AND LANDING GEAR ATTACHMENT FITTINGS AND BRACKETS		
ALL OVEREXPOSED FACES	PARTS ARE FINISHED F24 IN DETAIL	F24 GRAY
SHROUD		
WING TOP SURFACE BOTTOM SURFACE	AIRCRAFT PAINT SCHEME	F24 GRAY
FRONT SPAR (FIGURE 7)		
ALL OVER FRONT FACE		
REAR SPAR (FIGURE 7)		
ALL OVER EXPOSED FACE	STRUCTURAL FITTINGS AND BRACKETS, IF ATTACHED AFTER SPRAY PAINTING SHALL HAVE NO F24 ON FAYING SURFACES	F24 GRAY
	TOUCH UP FASTENERS AND UNPAINTED AREAS	F19 + F22 OR F24 GRAY

TABLE 8 PROTECTIVE TREATMENT FOR AIRCRAFT MAJOR ASSEMBLIES

AIRCRAFT MAJOR ASSEMBLIES	REMARKS	FINISH CODE
SPOILERS - FLIGHT AND GROUND SPOILER		
ALL OVER EXTERIOR	FR PRIMER AFTER BONDING PLUS POLY-URETHANE ENAMEL OF SAME COLOR AS EXTERIOR PAINT SCHEME	F19 + F24
SPOILER WELL		
SKIN EXTERIOR FACE	POLYEURETHANE ENAMEL OF SAME COLOR AS EXTERIOR PAINT SCHEME	F24
SPOILER AND SPOILER WELL AFTER INSTALLATION OF SPOILER MECHA-NISM BLEED-OFF		F13 GR. 3
STATIC BLEED-OFF		
NON-RADOME EXTERIOR COMPOSITE PARTS AND ASSEMBLIES		F33 + F41 + F19 TYPE III
RADOMES	PER RADOME MANUFACTURER	
AIRCRAFT PAINT SCHEME		
ALL EXTERIOR METAL AND NON-METAL SURFACES	AFTER INITIAL CLEAN-ING OF THE F19 PRIMED SKINS, THE SURFACES ARE SCUFF SANDED AND SOL-VENT TREATED.	F23 + F24 TO CUTOMER'S COLOR SCHEME

FIGURE 1 APPLICATION AREAS FOR F13 GRADE, 3 MOISTURE DISPLACING CORROSION INHIBITING COMPOUND

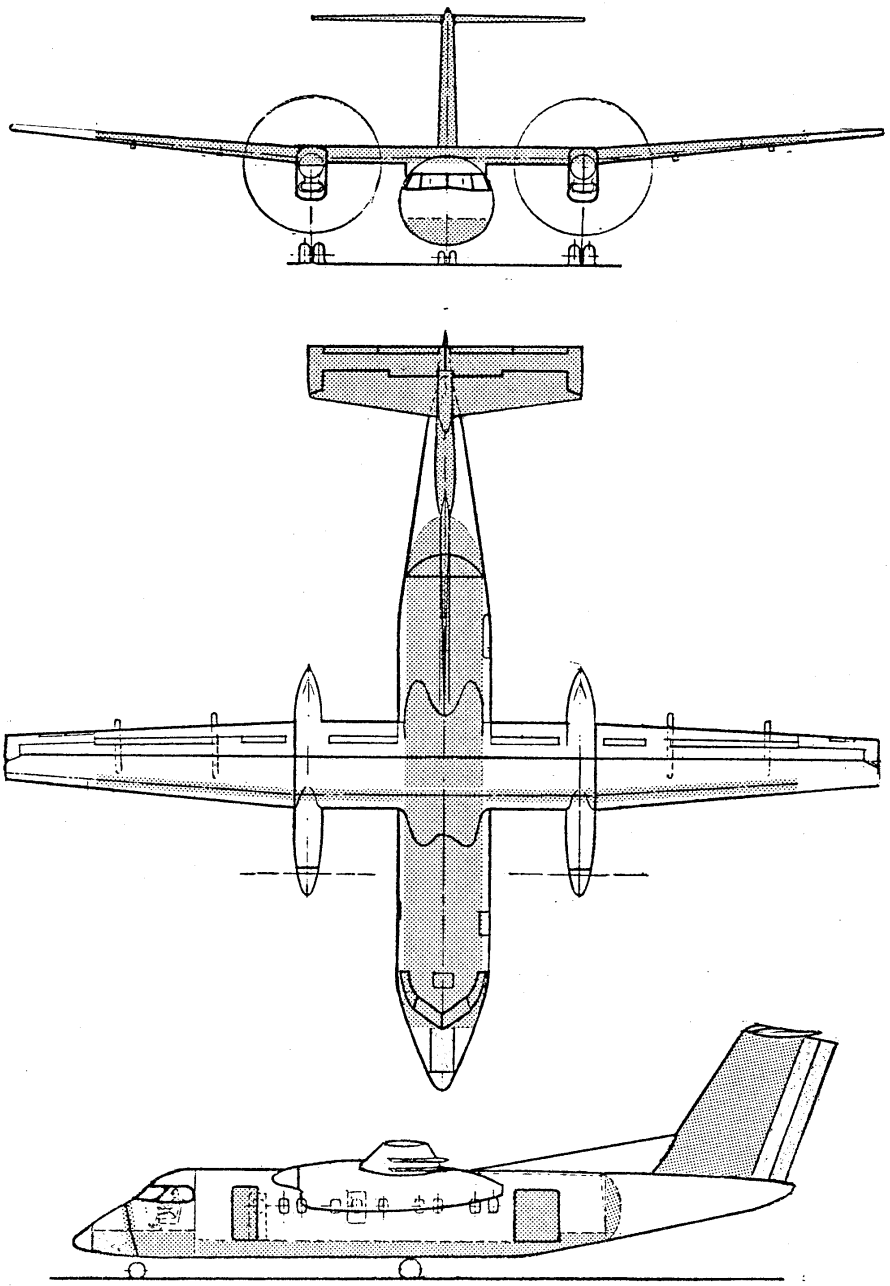

FIGURE 2 FUSELAGE APPLICATION AREAS FOR F13 GRADE 3, MOISTURE DISPLACING CORROSOPN INHIBITING COMPOUND

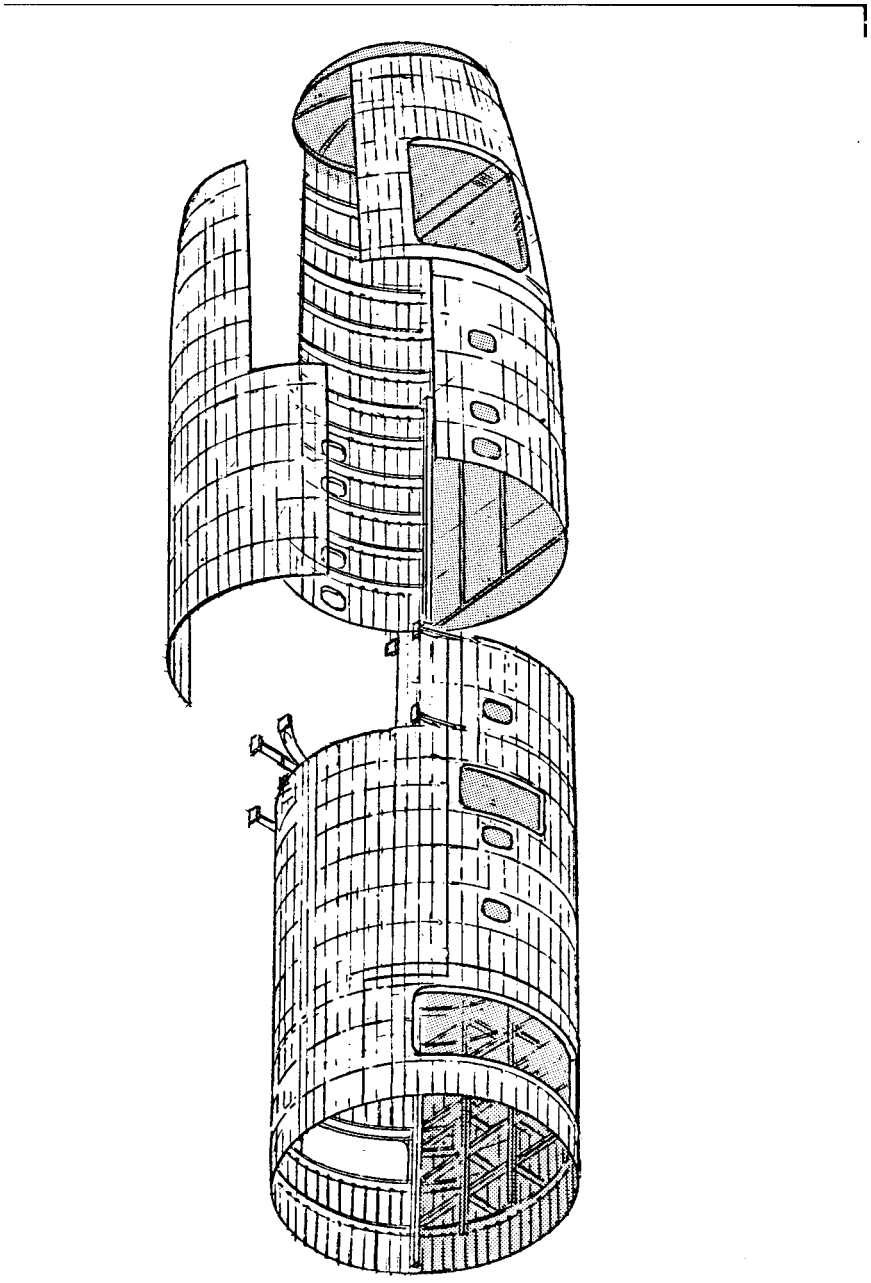

FIGURE 3 APPLICATION AREAS FOR F13 GRADE 3, MOISTURE DISPLACING CORROSION INHIBITING COMPOUND

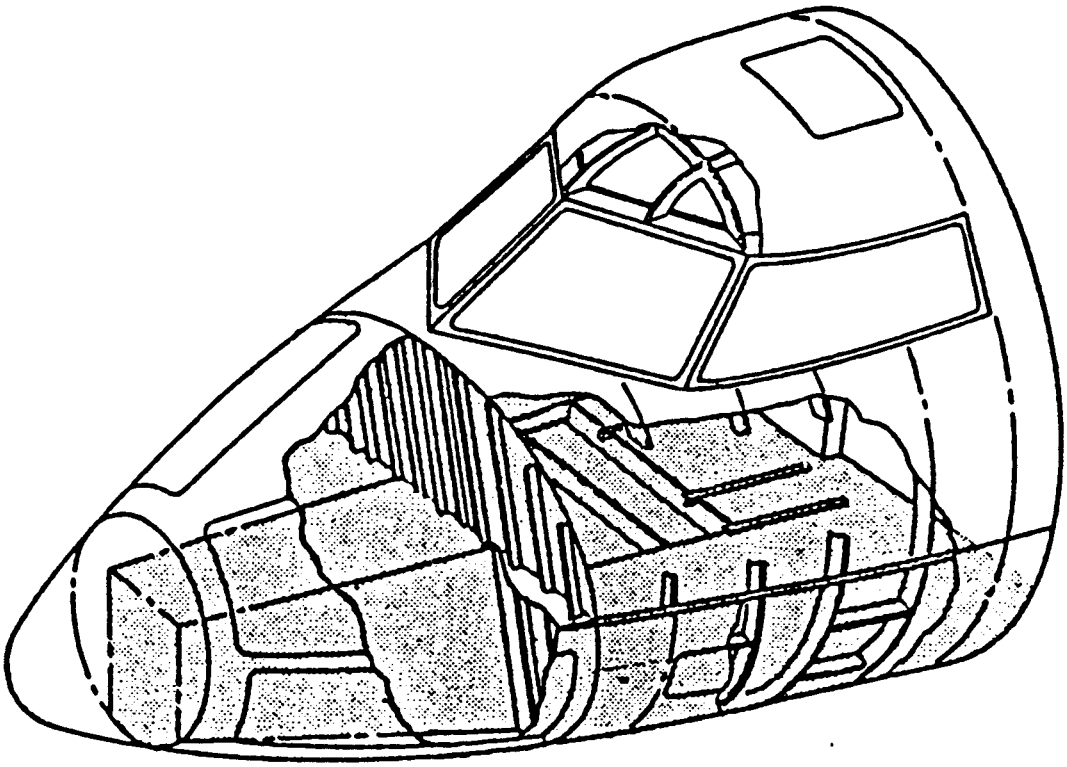

FIGURE 4 APPLICATION AREAS FOR F13 GRADE 3, MOISTURE DISPLACING CORROSION INHIBITING COMPOUND

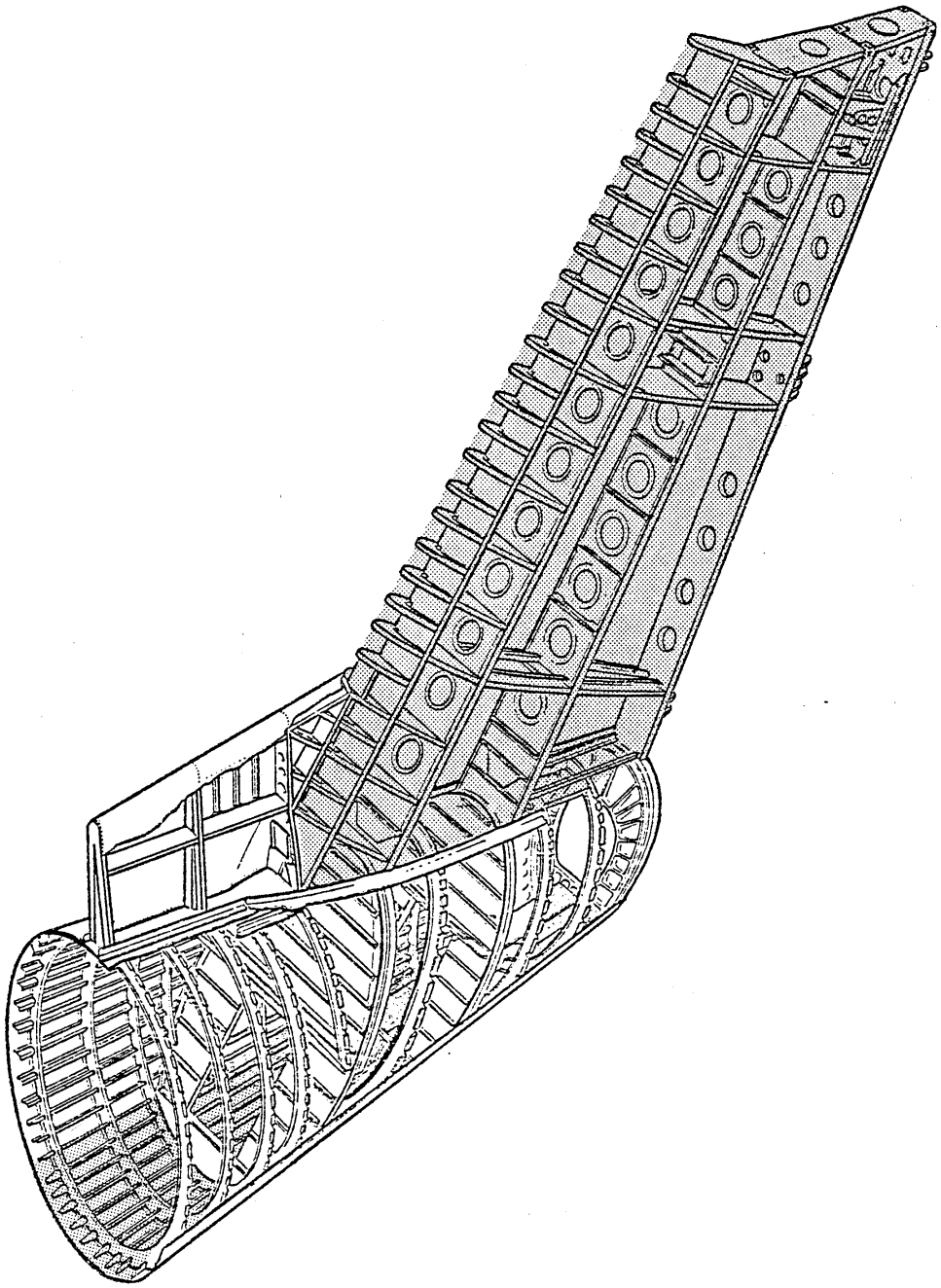

FIGURE 5 APPLICATION AREAS FOR F22 ALUMINIZED EPOXY ENAMEL AND F24 GREY POLYURETHANE ENAMEL

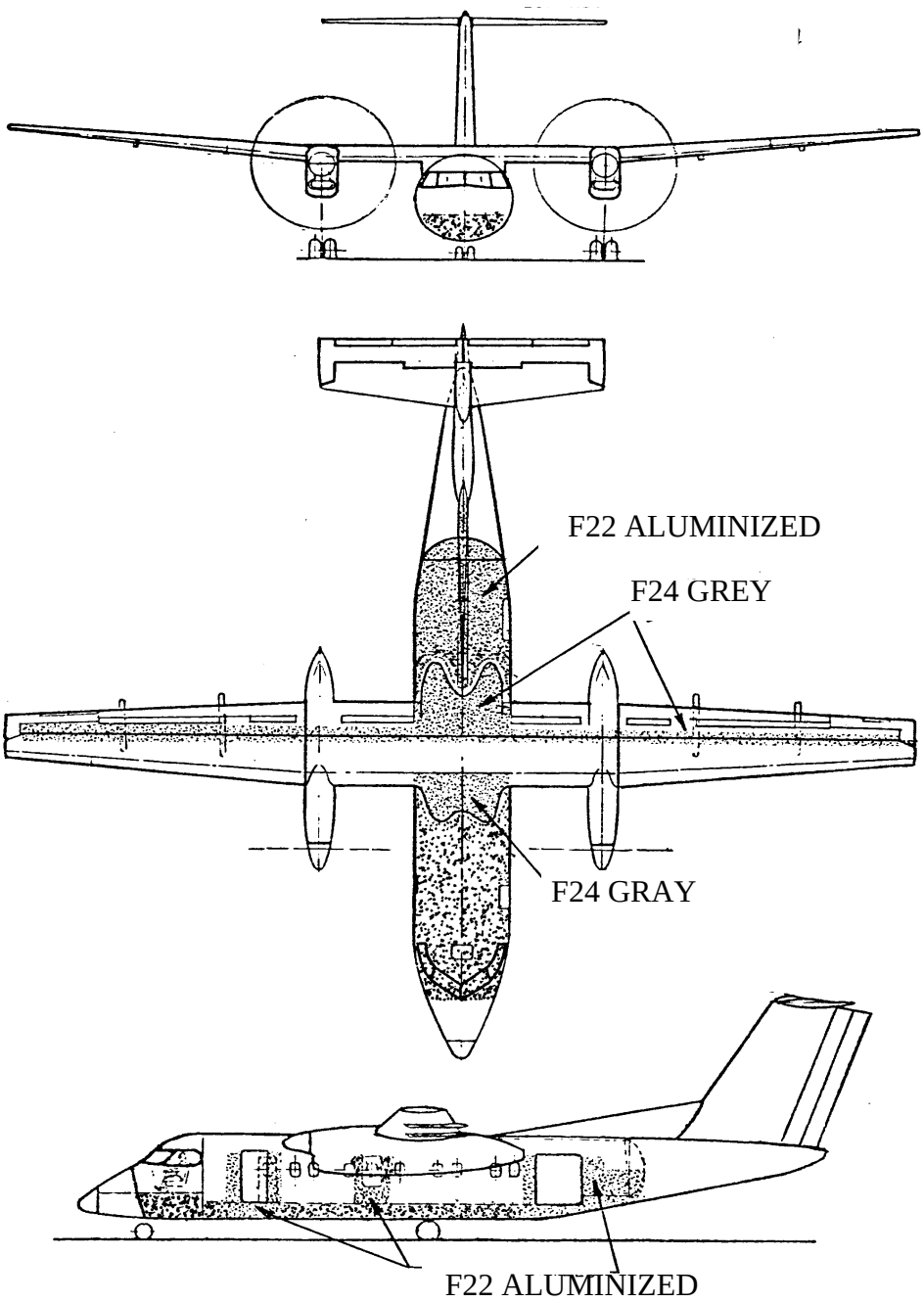

FIGURE 6 FUSELAGE APPLICATION AREAS FOR F22 ALUMINIZED EPOXY

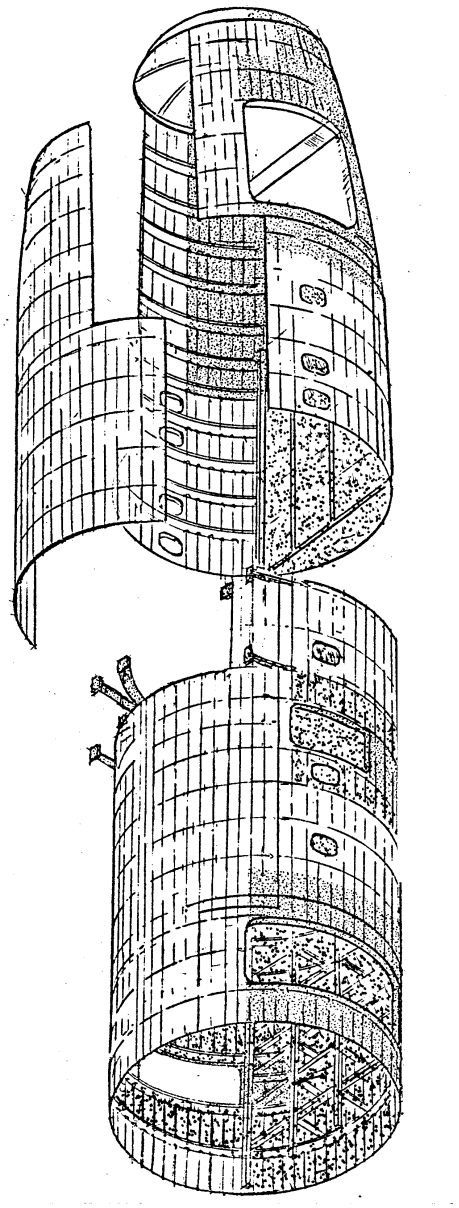

FIGURE 7 WING - APPLICATION AREAS FOR VARIOUS PROTECTIVE TREATMENTS

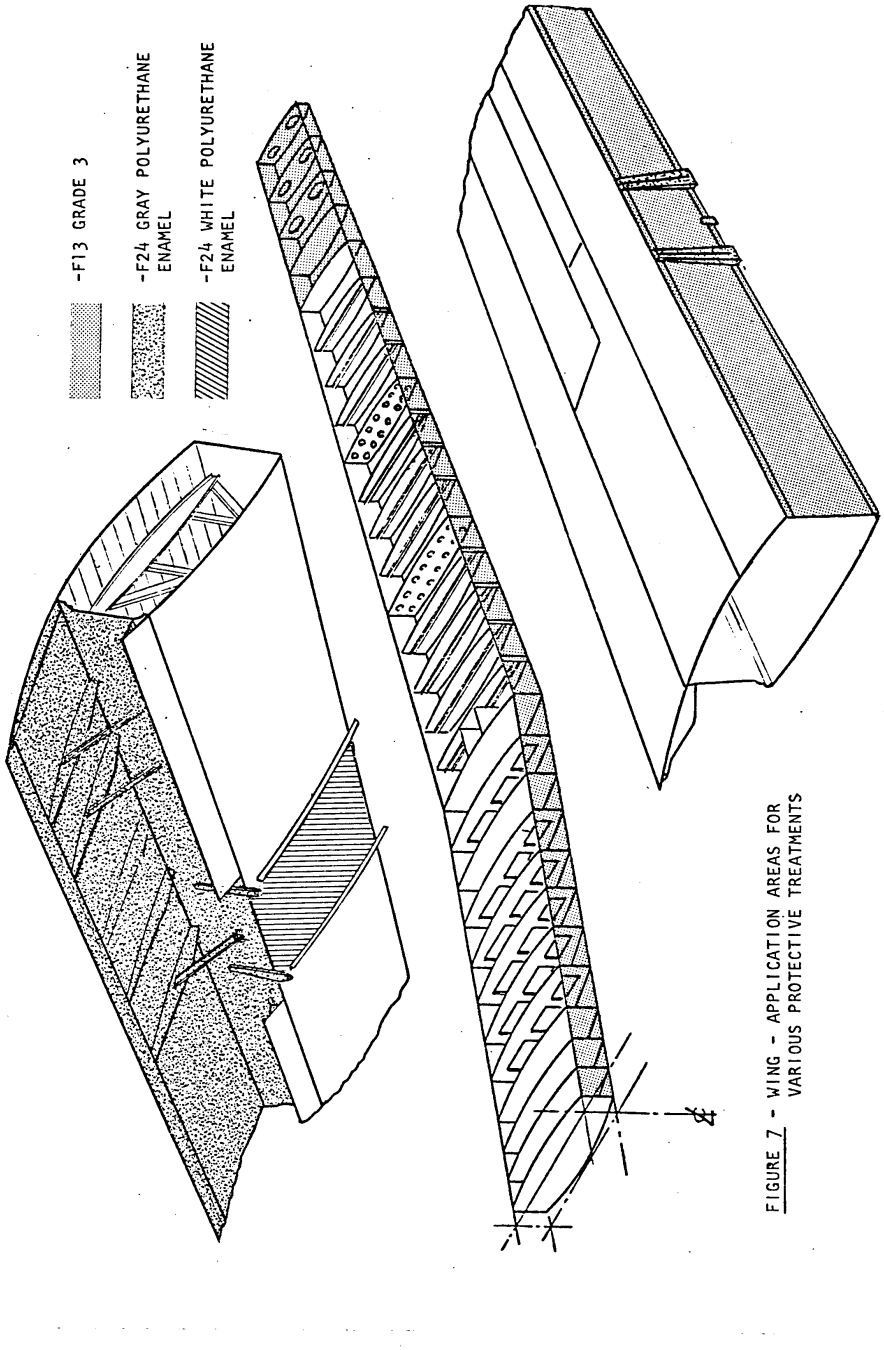

FIGURE 8 APPLICATION AREAS FOR F24 WHITE,POLYURETHANE ENAMEL

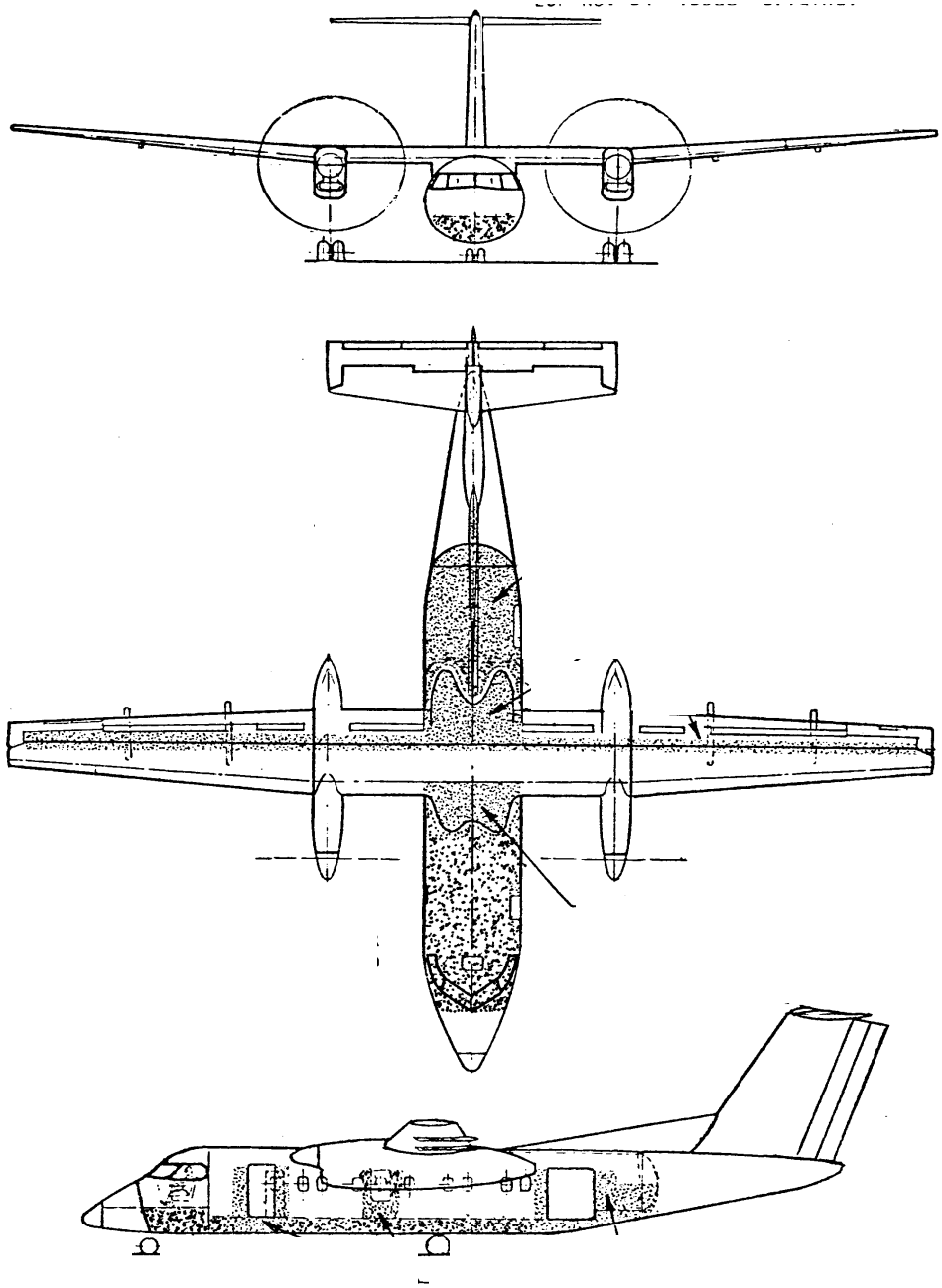

FIGURE 9 FRONT FUSELAGE - APPLICATION AREAS FOR F24 WHITE POLYURETHANE ENAMEL

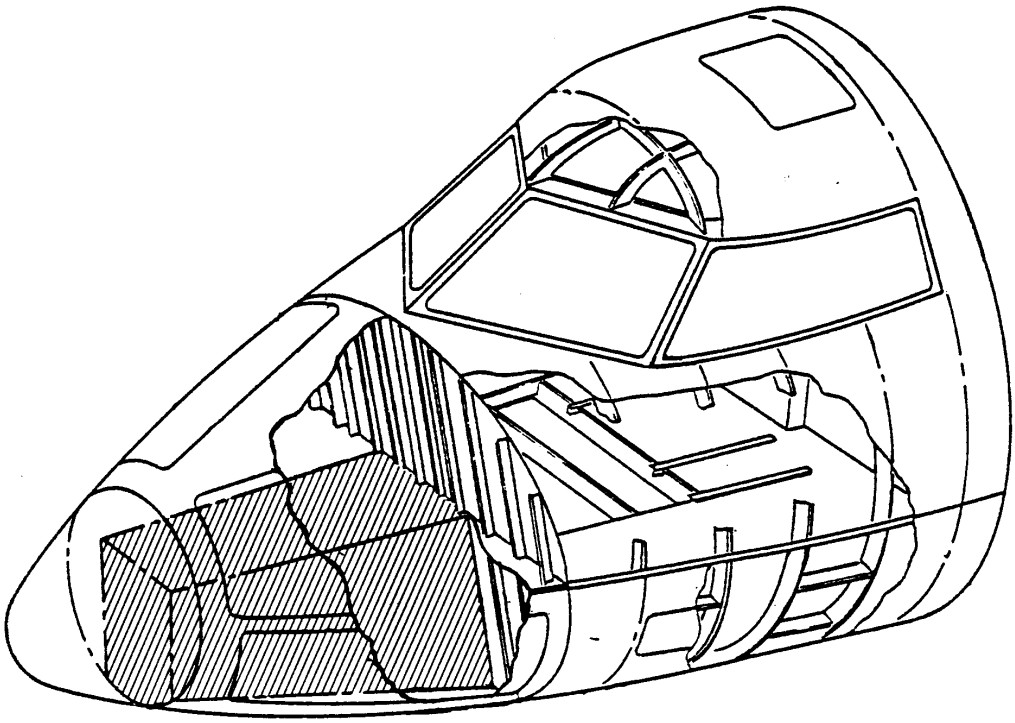

FIGURE 10 NACELLE - APPLICATION AREAS FOR F24 WHITE POLYURETHANE ENAMEL

DHC-8 SERIES 400 PROTECTIVE TREATMENT

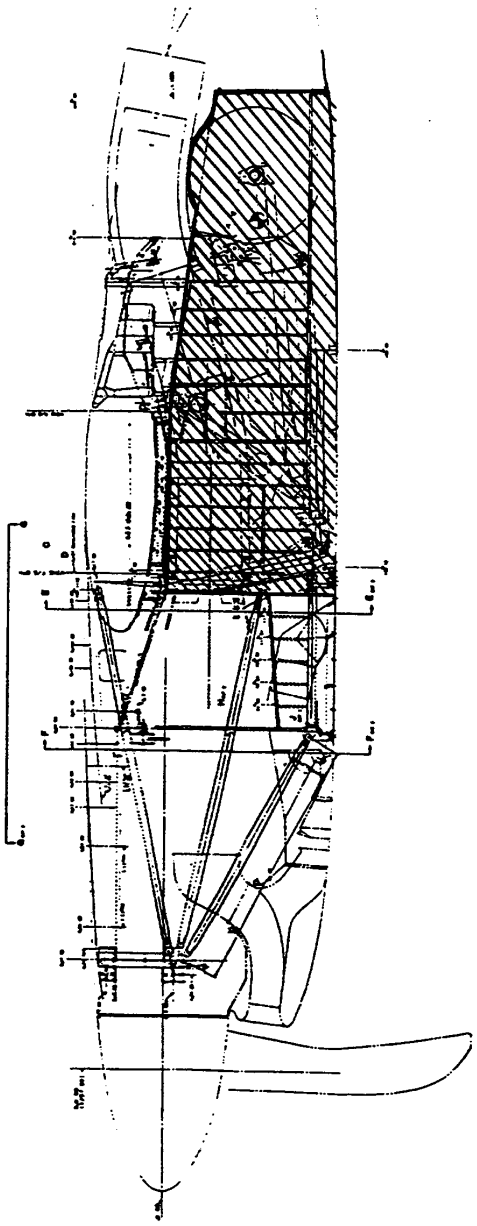

FIGURE 11 REAR FUSELAGE AND TAILCONE - APPLICATION AREAS FOR F24 WHITE POLYURETHANE ENAMEL