

## SECTION 5. VISUAL CORROSION INSPECTION GUIDE FOR AIRCRAFT

**6-63. GENERAL.** This guide provides a general inspection checklist for those parts or surfaces that can be visually inspected without disassembly of the aircraft. It is intended for use in establishing corrosion inspection areas for which the manufacturer has not provided a recommended corrosion inspection program. The manufacturer's recommended corrosion inspection program will take precedence over this guideline. These inspections should be accomplished in conjunction with other preventive maintenance.

**a. Inspect bilge areas** for waste hydraulic fluids, water, dirt, loose fasteners, drill chips, and other debris.

### **6-64. EXHAUST TRAIL AREAS.**

**a. Visually inspect paint** in areas of the exhaust trails for damage.

**b. Visually inspect under fairings,** around rivet heads, and in skin crevices, for corrosion in areas of engine exhaust trail.

### **6-65. BATTERY COMPARTMENTS AND BATTERY VENT OPENINGS.**

**a. Inspect battery compartment** for electrolyte spillage, corrosion, and condition of protective paint.

**b. Inspect area around battery vent** for corrosion.

### **6-66. LAVATORIES AND GALLEYS.**

Inspection areas around lavatories, sinks, and ranges for spillage and corrosion. Pay particular attention to floor area and the area behind and under lavatories, sinks, and ranges.

### **6-67. BILGE AREAS.**

**b. Remove any foreign material** from bilge and inspect for corrosion.

**6-68. WHEEL WELLS AND LANDING GEAR.** Inspect wheel well area and landing gear components for damage to exterior finish coating and corrosion. Particular attention should be given to exposed surfaces of struts, oleos, arms, links, and attaching hardware; axle interiors, exposed position indicator switches and other electrical equipment; crevices between stiffeners, ribs, and lower skin surfaces; magnesium wheels, particularly around bolt heads, lugs, and wheel web areas; and exposed rigid tubing at “B” nuts and ferrules under clamps, and tubing identification tapes.

**6-69. EXTERNAL SKIN AREAS.**

**a. Inspect external skin surfaces** for damage to protective finishes and corrosion.

**b. Inspect around fasteners** for damage to protective finishes and corrosion.

**c. Inspect lap joints** for bulging of skin surface, which may indicate the presence of corrosion between the faying surfaces. Skin cracks and/or dished or missing fastener heads may also indicate severe corrosion in bonded joints.

**d. Inspect area around spot welds** for bulges, cracks, or corrosion.

**e. Inspect piano type hinges** for corrosion. When piano hinges are inspected they should be lubricated and actuated through several cycles to ensure complete penetration of the lubricant.

**f. Inspect thick alloy skin surfaces** for pitting, intergranular corrosion, and exfoliation of the metal. Look for white or gray deposits around countersunk fastener heads and raised areas or bumps under the paint film.

**g. Inspect composite skins** for corrosion of attachment fasteners.

**6-70. WATER ENTRAPMENT AREAS.** Inspect area around edge of drain holes for corrosion and ensure that drain holes are not blocked by debris.

**6-71. ENGINE FRONTAL AREAS.**

**a. Inspect reciprocating engine cylinder fins,** engine cases, and cooling air ducts for damage to exterior finish and corrosion.

**b. Inspect radiator cooler cores** for corrosion.

**6-72. ELECTRONIC PACKAGE COMPARTMENTS.**

**a. Inspect circuit-breakers,** contact points, and switches for evidence of moisture and corrosive attack.

**b. Treatment of corrosion** in electrical and electronic components should be done by or supervised by qualified personnel familiar with the function of the unit involved.

**6-73. FLEXIBLE HOSE ASSEMBLIES.**

**a. Inspect hose assemblies** for chafing, weather-checking, hardening, discoloration, evidence of fungus, torn weather protective coatings or sleeves, and corrosion of fittings.

**b. Replace any defective,** damaged, twisted, or bulging hoses.

**6-74. SANDWICH PANELS.** Inspect edges of sandwich panels for damage to the corrosion protection finish or sealant and for corrosion.

**6-75. CONTROL CABLES.**

**a. Inspect control cables** for bare spots in the preservative coating and corrosion.

**b. If external corrosion is found,** relieve tension on the cable and check internal strands for corrosion. Cables with corrosion on internal strands should be replaced. External corrosion should be removed by a clean, dry, coarse rag or fiber brush. A preservative should be applied after removal of external corrosion.

**6-76. INTEGRAL FUEL CELLS.**

**a. Inspect top coat finish** for breaks, peeling, lifting of surface, or other damage.

**b. Inspect aircraft structure** for top coat finish damage from pitting or intergranular corrosion.

**6-77. ELECTRICAL CONNECTORS.**

**a. Inspect electrical connectors** for breaks in potting compound and corrosion of pins and wires.

**b. If the electrical connector is suspected** of having moisture intrusion, disassemble the connector, clean the connector, and inspect it for corrosion.

**6-78.<sup>3/4</sup> 6-88. [RESERVED.]**