

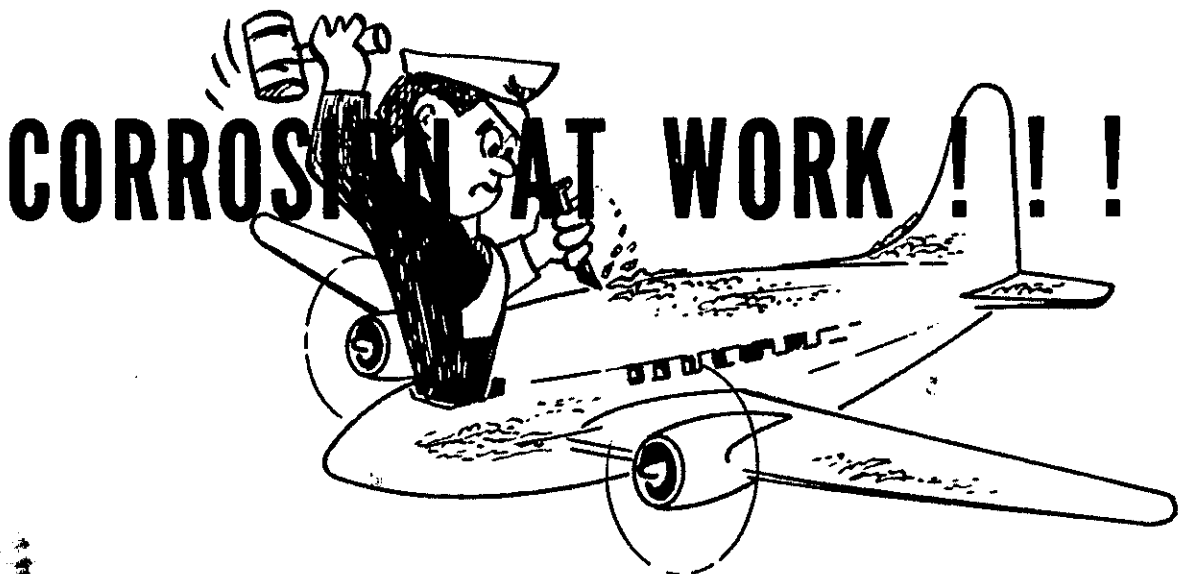
AC NO. 20-7N

## SPECIAL ISSUE

# GENERAL AVIATION INSPECTION AID



# CAUTION



**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**Flight Standards Service**

# MARTIN MODEL 404 AIRCRAFT - CORROSION INSPECTION

Reports have been received which indicate numerous areas where corrosion has occurred within a Martin Model 404 aircraft. It is recommended that these areas be periodically inspected to keep the corrosion under control. The following listed items correspond numerically with the shaded areas in the diagram and point out locations where corrosion has been found.

1. Fuselage in the area of the lavatory service door. Fuselage skin surface corrosion is detected by visual inspection. Corrosion between skin, stringers, and formers is detected by a slight bulging and pulled or sheared rivet heads.
2. Lower side of center wing between engine nacelle and fuselage. This is detected by blisters or bulges, usually at rivet holes.
3. Engine exhaust contributes to corrosion, especially on rear spar area, wing flap hinge brackets, and stringers inside the nacelle.
4. Top outer wing panel. Usually detected by a bulge on top surface of wing panel. This corrosion starts between top wing skin and corrugated panel inside wing. Wing scarf splices should also be checked for corrosion due to engine exhaust. Experience has shown that the lower left rear wing splice is more prone to excessive corrosion. AD 75-26-08 concerns inspection for corrosion at wing spar chord splice joints at wing station 187.
5. Fuel cell area. Look for bulges in the same area as outside, particularly in the production splice areas. Also, in the cell area, check the top spar cap vertical leg and radius areas.
6. Center section-to-fuselage attach area at the doubler between front and rear spar wing station 55. Check with the fairing removed.
7. Rudder upper hinge bracket and the spar cap top hinge attach area. Remove the cover inspection plate and look forward on the under side.
8. Galley and radio rack area along stringers and floor panels.
9. Horizontal stabilizer on the front spar caps station 22-27 and the bottom rear spar cap. Experience has shown that the top spar cap area is more susceptible to corrosion. Corrosion is usually detected by slight bulging of the adjacent skin.
10. Front and rear face of the rear wing spar web and spar caps between center wing station 55 and outer wing station 221.

