

Airparts (NZ) Ltd. FU 24 Series Aeroplanes

---

**AD/FU24/44**

**Part 1. Wing Spar Modification, and  
Part 2. Wing Spar Inspection**

**3/72**

Applicability: All models in the agricultural category, and all models previously used in agricultural operations, except aircraft incorporating spar steel doublers in accordance with Air Parts SB No. AP.55 Part B.

Requirement: For Aircraft in the Agricultural Category

PART 1 - Modification

Modify the centre-wing main spar lower cap in accordance with Air Parts Service Bulletin No. AP.59.

PART 2 - Inspection

1. Carry out a visual inspection for cracking of the centre-wing main spar lower cap over the area which is accessible after removing the main beam slot fairing, leading edge fuel tanks, access panels etc. Special attention shall be paid to areas adjacent to fastener holes and changes in section.
2. (a) Carry out a visual inspection for cracking of the centre-wing main spar lower cap over the area which is accessible after removing the main beam slot fairing, leading edge fuel tanks, access panels etc.  
  
(b) Inspect the edges of the spar cap members by inserting a borescope wherever possible between the edge of the spar doubler and the fuselage structure. It is essential that at least one side of the original spar cap be inspected along the whole length covered by the doubler. The borescope inspection is based upon the capability of finding a major crack or a failure of one of the five original spar cap members.

*Note: As an alternative to the borescope inspection the Authority may consider any alternative scheme using a radiographic inspection technique based upon the detection of a complete failure of any one of the five original spar cap members.*

3. Carry out a visual and dye penetrant inspection for cracking of the outer and centre-wing main spar lower attachment fittings after removing the lower attachment bolts.

For Aircraft not now in the Agricultural Category but which have previously been engaged in Agricultural Operations.

The Authority shall be consulted to establish the inspection and modification requirements.

Compliance: For Part 1 - Within 1000 hours time in service after 31 March 1972.

*Note: To obtain the maximum fatigue life benefit the modification should be incorporated at the earliest possible opportunity.*

For Part 2, Para. 1 - For aircraft not modified in accordance with Part 1 and with more than 5000 hours total time in service - within 200 hours time in service after 31 March 1972 and therefore at intervals not exceeding 200 hours time in service.

For Part 2, Paras. 2(a) and 2(b):

- (1) For aircraft modified in accordance with Part 1 at not more than 500 hours time in service - within 200 hours time in service after reaching the additional time "T" and thereafter at intervals not exceeding 200 hours total time in service where:

$$T = 20,000 - \frac{19,000}{5,000} \times n \text{ hours additional time in service; and}$$

n = aircraft total hours time in service as at incorporation of modification in accordance with Part 1.

- (2) For aircraft modified in accordance with Part 1 at more than 5000 hours time in service - within 100 hours time in service from date of modification and thereafter at intervals not exceeding 200 hours time in service.

For Part 2, Para. 3 - Within 100 hours time in service after 31 March 1972 for aircraft with more than 8000 hours time in service and thereafter at intervals not exceeding 100 hours time in service.