

BELLANCA SERVICE LETTER

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SUBJECT: Landing Gear Thru-Bolt and U-Bolt Inspection and Maintenance;
Parts and Service Manual Part Number Corrections

AIRCRAFT AFFECTED: 7ECA, 7GCAA, 7KCAB, 7GCBC, 8KCAB, 8GCBC

COMPLIANCE: Bellanca recommends that the inspections presented herein be performed on or before the next 100 hour inspection and at 100 hour intervals thereafter, and at more frequent intervals if aircraft is used in soft or rough runway operations.

INTRODUCTION

There have been reports of cracked and failed thru-bolts and U-bolts used to attach the landing gear to the fuselage frame. These problems are due to one or more of the following: (1) Excessive loads during soft or rough runway operation; (2) improper torque; (3) corrosion.

In order to prevent cracking and to detect cracks before failure occurs, the following inspections and replacements are recommended.

Certain hardware callouts as shown in the Citabria, Decathlon and Scout Service and Parts Manuals are incorrect; correct the manual as indicated below.

INSTRUCTIONS

1. Inspections and Torque Checks

Conduct the following inspections at intervals consistent with the compliance paragraph above.

1.1 Lift aircraft using jacks at fuselage strut-attach fitting until weight of aircraft is supported by jacks and wheels are just touching floor.

1.2 Check torque of thru-bolts. If torque value is below minimum value specified in Table 1, remove and inspect bolts, nuts and washers. Inspect bolts for straightness, excessive wear, cracks and corrosion. Verify that proper parts are installed per Table 1. Standard AN parts are not acceptable. Install thru-bolts, washers and nuts. Torque to values shown in Table 1.

- 1.3 Check torque of U-bolts. If torque value is below minimum val specified in Table 1, remove and inspect U-bolts, nuts and washer. Inspect U-bolts with particular attention to the inside radii at front and rear. Inspect for straightness of legs, excessive wear, cracks, corrosion and thread condition. If cracks are suspected, accomplish dy-penetrant or magnetic particle inspection. Verify that proper parts are used per Table 1. Install U-bolts, washers and nuts. Torque bolts to values shown in Table 1.

2. Replacement

At intervals not to exceed 500 hours of operating time and at more frequent intervals if aircraft is used in soft or rough runway operations, remove and replace thru-bolts and U-bolts or inspect each part using magnetic particle inspection.

3. Service and Parts Manuals

The Citabria, Decathlon and Scout Service and Parts Manuals should be corrected per Tables 1 and 2.

TABLE 1
 LANDING GEAR ATTACHMENT PARTS

Models	Thru-Bolt					U-Bolt				
	Bolt	Head Washer	Nut Washer	Nut	Torque	U-Bolt	Washers	Nut	Torque	
7ECA,7GCAA 7GCBC, 7KCAB, 8KCAB	MS20007-32 (1 Req'd)	MS20002C7 (1 Req'd)	MS20002-7	ZEB1845-070 (1 Req'd)	650-700 in-lbs	1-9805 (1 Req'd)	MS20002-7	ZEB1845-070 (1 Req'd)	450-500 in-lbs	
8GCBC	MS2007-28 (1 Req'd)	MS20002C7 (1 Req'd)	MS20002-7	ZEB1845-070 (1 Req'd)	650-700 in-lbs	1-10376 (1 Req'd)	MS20002-7	ZEB1845-070 (1 Req'd)	450-500 in-lbs	

- NOTES:
1. Number required is per one landing gear assembly.
 2. Thru-bolts and U-bolts to be replaced or inspected using magnetic particle inspection every 500 hours, or at more frequent intervals if aircraft used in frequent soft or rough runway conditions.

TABLE 2
EFFECTED PAGES

Manual		Effected Pages
	Citabria	35, 81
Service	Scout	31, 75
	Decathlon	32, 74
	Citabria	48
Parts	Scout	--
	Decathlon	44