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ICA-D412-630
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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

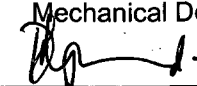
ICA-D412-630

Heli-Access-StepsTM

BELL 205/210/212/214/412 MODELS

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Revision: 6

CHAPTER 5 – INSPECTION REQUIREMENTS (05-00-00)**5.1 300 HOUR INSPECTION**

(To be performed at every third 100 hours inspection to coincide with airframe inspection or if damage found on pre-flight check)

Note: For the convenience of scheduling maintenance, the tolerance for scheduled inspection intervals is +/-10% (+/- 30 hours). In each case, the subsequent interval will be adjusted to re-establish the original schedule. When an inspection is done more than 10% early, subsequent inspections will be advanced as required not to exceed the maximum tolerance. Concurrence and final approval of inspection interval tolerance by the governing civil aviation authority is the responsibility of the owner/operator.

5.1.1 To facilitate inspection it is recommended that the steps be removed from the aircraft per section 25.1 or 25.3 of this document as applicable. Inspect the hardpoints for corrosion/pitting or mechanical damage (such as nicks/scratches/cracks) per the Aircraft Maintenance Manual.

5.1.2 Inspect the step installation for corrosion and mechanical damage per the following table. Replace parts that have been damaged beyond limits per item 5.1.11.

Part	Type of Damage	Max Allowable	Repair
D2550-1/-2, D2812-041/-042 D2812-043/-044, D2801-041/-042, D3388-041/-042 D3562-041/-042 Step Weldments or D2990-041/-042, D2803-041/-042, D2804-041/-042, D3462-041/-042 Brackets or D3443-041/-043, D3463-041/-042 Strut/Step Ass'y or D2695-1/-2, D2696-1/-2, D2697-1/-2, D2702-1/-2 Legs	Corrosion	2"x2"x0.020" deep (51mm x 51mm x 0.50mm).	Blend up to 0.020" (0.50mm) deep with scotchbrite.
	Scratches/nicks	0.020" (0.50mm) deep x 1" (25mm) long.	Blend up to 0.020" (0.50mm) deep with scotchbrite.
	Cracks*/Dents/ Bending/Yielding (*except in the step welds, see 5.1.3 & 5.1.4)	None	None, replace part
	Hole elongation	0.025" (0.64mm) across hole diameter	None, replace part

Part	Type of Damage	Max Allowable	Repair
D2704, D2810-1/-3/-5 Struts	Corrosion	0.010" (0.25mm) deep	Blend up to 0.010" (0.25mm) deep with scotchbrite.
or D2012-107, D2698, D2699, D2700, D2701, D2703 Clevis	Scratches/nicks	0.010" (0.25mm) deep x 0.5" (12.7mm) long	Blend up to 0.010" (0.25mm) deep with scotchbrite.
or D2807-041 Gas Spring Assembly	Cracks/Bending/ Yielding	None	None, replace part
or D2806-1/-3 D3454-1/-3/-5/-7 Bushing	Hole elongation	0.025" (0.64mm) across hole diameter	None, replace part

5.1.3 Inspect the step welds for signs of cracking. Cracks up to 0.25" (6.35mm) long may be repaired as follows:

- Clean area of paint, etc,...
- Grind away weld in area of crack.
- T.I.G. weld per MIL-STD-2219/AMS-STD-2219 Class "C" using 5356 or 4043 filler rod (aluminum) or ER316L or ER308L filler rod (stainless steel). Do not grind flush.
- Touch up finish per item 5.1.6.

5.1.4 Cracks up to 0.375" in length in shaded region of D2801-041/-042, D2812-041/-042, and D3388-041/-042 Step Weldments (See Figure 5-1) can be repaired as follows:

- Clean area of paint, etc,...
- Grind a chamfer 0.125" X 45° along the crack.
- T.I.G. weld chamfer per MIL-STD-2219/AMS-STD-2219 Class "C" using 5356 or 4043 filler rod (aluminum).
- Blend weld to same profile as original part.
- Liquid penetrant inspect per ASTM 1417 Level 2 (minimum). No cracks or porosity indicators allowed.
- Touch up finish per item 5.1.6.

5.1.5 If corrosion is found within limits on the Step Weldments, Brackets, Strut/Step Assy, or Legs, then it can be repaired as follows:

- It is permissible to clean off the surface corrosion by lightly buffing the affected areas.
- The parts should then be alodined and primed in accordance with Section 5.1.6.
- On D3562-041/-042 Step Assemblies, the step arm weldments should then be reassembled onto the step extrusion using Proseal 890 as a bonding agent and MS20600AD4W rivets which should be installed wet with Proseal 890.
- The joints between the step weldment arm plates and the step extrusion on D3562-041/-042 should also be sealed using Proseal 890 or Sikaflex-241/-291 prior to or after painting.
- Painting should be carried out in accordance with Section 5.1.6.

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05-00-00

- 5.1.6 Inspect all areas of the step for suitability of the paint finish and the anti-skid surface. Touch up affected areas with chemical film material (Alodine 1200 or 1201) per MIL-C-5541 (aluminum only), one coat of MIL-P-85582 or MIL-P-23377 primer, and 2-3 coats of MIL-C-85285 polyurethane paint to match original finish. Clean off flaking anti-skid and touch up with Black Anti-Skid paint per MIL-W-5044 Type 2.
- 5.1.7 Inspect all hardware for wear, corrosion, cracks, or stripped threads. Replace as required per item 5.1.11.
- 5.1.8 Inspect operation of D2807-041 gas spring assembly (-011/-012/-013/-014/-023/-024/-033/-034 steps). The spring should be pressurized and have a smooth movement. It should hold the step down in the deployed position and it should take 15-20 lbs to lift the step up. The force required to lift the step up should not exceed 20 lbs. Replace as required per item 5.1.11. Reinstall the D2807-041 gas spring assembly as shown in figures 25-3/-5/-6/-7/-8/-10/-11/-13/-14 with the arrow pointing towards the step and away from the aircraft.
- 5.1.9 If the D412-630-031/-032 Steps are installed, ensure that the force required to push the D3463-041/-042 Step Assembly into the retracted position is between 11 lbs (5.0 kg) & 18 lbs (8.2 kg). If adjustment is required, remove lockwire on AN4CH3 bolts and loosen or tighten AN4CH3 bolts so that the load to lift the step is in the proper range. Once the proper setting is found, lockwire bolt heads together per AC43-13-1B Chapter 7 Section 7 using MS20995C41 lockwire (see Figure 25-23).
- 5.1.10 In corrosive environments it is recommended to apply LPS Laboratories "LPS-3" corrosion inhibitors to all faying surfaces and "LPS Procyon" to exposed hardware as required.
- 5.1.11 Replace damaged or excessively worn parts per Chapter 25 of these instructions.
- 5.1.12 Reinstall step per section 25.2 or 25.4 as applicable if it has been removed for inspection.

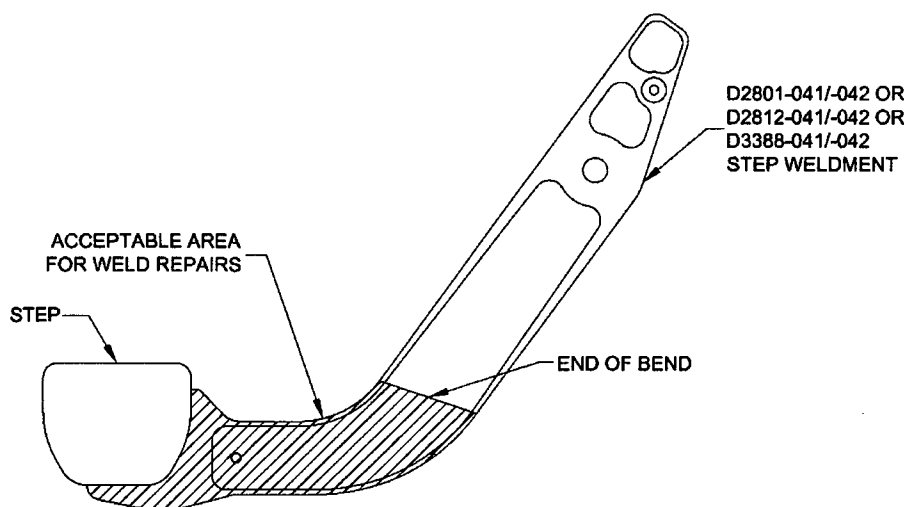


FIGURE 5-1: Acceptable Area for Weld Repairs