



SERVICE DIRECTIVE BULLETIN

SERVICE DIRECTIVE BULLETIN NO. T-029

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DATE: March 20, 2007

1. SUBJECT: Hinge Pins (Main Rotor Blade Retention Pins), P/N 28-14007-3,
Manufactured from Incorrect Specification Material
2. MODEL: All TH-28/480 Series Models
3. EFFECTIVITY: 480B: Serial numbers 5069, 5072 through 5074, 5076 through
5107

All TH-28/480 Series Models that have had new hinge pins (main rotor retention pins), P/N 28-14007-3, installed after April 28, 2004.

4. BACKGROUND:

While preparing to start a manufacturing order for the Hinge Pin, P/N 28-14007-3, a review of the raw stock material specifications indicated the material did not meet the specifications listed on the engineering drawing. Subsequent review of previous manufacturing orders indicated that the same raw stock material was used in previous manufacturing orders for the pins.

This Service Directive Bulletin (SDB) provides instructions for determining if the affected pins are installed in the aircraft or spare parts inventory and replacing/removing from service the pins in accordance with (IAW) the instructions in paragraph 5.

FAA Approval has been obtained for the technical data in this SDB.

5. COMPLIANCE:

At or before the next 25 hours time in service, determine if any of the hinge pins listed in Table 1 are installed in the aircraft and total time in service for the pins IAW paragraph 5.1. If the aircraft is not equipped with hinge pins listed in Table 1, no further action is required.

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5. COMPLIANCE: (continued)

At or before the next 25 hours time in service, inspect hinge pins listed in Table 1 IAW paragraph 5.2. Pins accepted IAW the inspection in paragraph 5.2 may be reinstalled and the aircraft returned to service. Replace pins rejected IAW the inspection in paragraph 5.2. with hinge pins, P/N 28-14007-3, with serial numbers not listed in Table 1.

Remove hinge pins accepted IAW paragraph 5.2 from service prior to reaching 550 hours time in service on the pins and install hinge pins, P/N 28-14007-3, with a serial numbers not listed in Table 1.

Remove from spare parts inventory any hinge pins with serial numbers listed in Table 1.

Table 1. Affected Hinge Pins		
Description	Part Number	Serial Numbers
Hinge Pin (Main Rotor Retention Pin)	28-14007-3	04098-01 through 04098-56 05018-01 through 05018-36 05143-01 through 05143-56 05341-1 through 05341-8 05341-10 through 05341-17 05341-19 05341-21 through 05341-33 05341-35 through 05341-42 05341-44 through 05341-59 05341-61 05341-62 05341-64 through 05341-71 06214-3 through 06214-14 06214-16 through 06214-23 06214-25 through 06214-29 06214-31 06214-33 through 06214-35 06214-37 through 06214-57 06214-59 through 06214-68

5.1. ON AIRCRAFT INSPECTION:

NOTE

Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual.

- A. Gain access to the main rotor hub either by using the steps on the right side of the aircraft or an appropriate maintenance stand/platform.

- B. Visually inspect the head of the hinge pins (main rotor blade retention pins) for the serial number etched on the pins. If the aircraft is equipped with hinge pins listed in Table 1, proceed to paragraph 5.1.C. If the aircraft is not equipped with hinge pins listed in Table 1, no further action is required.
- C. Review the aircraft log book/maintenance records and determine the time in service for the hinge pins. Remove from service, any hinge pins listed in Table 1 with more than 550 hours time in service.

5.2. HINGE PIN INSPECTION:

NOTE

Perform all maintenance in accordance with the TH-28/480 Series Maintenance Manual.

- A. Remove the hinge pins (main rotor blade retention pins) from the aircraft.
- B. Magnetic particle inspect, IAW specification ASTM E1444-05, the pins for cracks using the following data; reject pins with any indications of cracks:
 - 1. Head Shot 500 Amps.
 - 2. Inspect for cracks.
 - 3. Coil Shot 1500 Amp.
 - 4. Inspect for cracks.
 - 5. Demagnetize.
- C. Visually inspect the pins IAW the data in Table 2. Pins may be repaired IAW the allowable limits in Table 2.

Table 2. Visual Inspection Requirements					
P/N	Part Name	Inspection	Serviceable Limits	Repair Limits	Repair/Action
28-14007-3	Hinge Pin	O.D. .8738" to .8745"	-.0002"	Not repairable	Replace Pin
		Threads (Crossed or missing)	None allowed	Not repairable	Replace Pin
		Nicks, scratches, or corrosion	None allowed	≤.010" deep	Blend and polish out smooth

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5.3. PARTS:

Part Number	Description	Quantity
28-14007-3	Hinge Pin (Main Rotor Retention Pin)	3 per aircraft

When ordering replacement hinge pins IAW this SDB, provide the serial numbers of the pins removed from service/parts inventory.

5.4. CONTACT INFORMATION

Enstrom Product Support
 Tel: 906-863-1200
 Fax: 906-863-6244
 email: customerservice@enstromhelicopter.com

6. SPECIAL TOOLS: None

7. ESTIMATED MAN-HOURS:

.5 Man-hours to determine the serial numbers and time in service of the hinge pins installed in the aircraft IAW paragraph 5.1..

1.5 Man-hours to remove, inspect, and reinstall the hinge pins IAW paragraph 5.2.

.5 Man-hours to replace 550 hour time in service hinge pins IAW paragraph 5 or 5.1.

8. WARRANTY:

Replacement hinge pins provided at no cost; return the removed hinge pins for warranty credit. Submit warranty form for labor credit.

9. WEIGHT CHANGE: None

10. LOG BOOK ENTRY:

Enter compliance with this Service Directive Bulletin in the aircraft maintenance records.

11. REPETITIVE INSPECTIONS: None