

ALERT SERVICE BULLETIN



A Textron Company

NO. 412-09-136

DATE Nov 09, 2009

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DATE
REV

MODEL AFFECTED: 412, 412EP

SUBJECT: TAIL ROTOR BLADE P/N 212-010-750-ALL, INSPECTION OF.

HELICOPTERS AFFECTED: Model 412 helicopters serial number 33001 through 33213, S/N 34001 through 34036 and S/N 36001 through 36494.

Model 412EP helicopters serial numbers 36495 and subsequent will have the intent of this bulletin accomplished prior to delivery.

Tail Rotor Blades P/N 212-010-750-133 serial numbers A-17001 and subsequent will have the intent of this bulletin accomplished prior to delivery.

COMPLIANCE: Within the next 100 flight hours or 90 days, whichever comes first.

DESCRIPTION:

Bell Helicopter has discovered that certain tail rotor blades may have manufacturing anomalies in the spar area as a result of the chemical milling process. The anomalies may be identified as pits and/or corrosion on the spar. Serviceability of the spar will consist of removing the paint on the spar between blade stations 22.5 and 40.0 and carrying out a detailed visual inspection with a 3-power or higher magnifying glass. A filet filled with adhesive runs spanwise between the blade spar and the skin 2.25 inches aft of the blade leading edge, both inboard and outboard sides. The primary area to be inspected runs along the edge of the spar filet and a half inch forward of this point. (Between 1.75 and 2.25 inch from the leading edge of the blade and from Blade Stations 22.5 to 40.0, both inboard and outboard sides).

APPROVAL:

The engineering design aspects of this bulletin are FAA/ODA approved.

MANPOWER:

Approximately 10.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

Owners / Operators of Bell Helicopters who comply with the instructions in this Bulletin will be eligible to receive a pro-rated credit towards the cost of replacement blades.

To receive this credit:

- Comply with the instructions contained in this Bulletin no later than the applicable hours or days in the “compliance section” of this ASB.
- Purchase the required applicable TR Blade/Blades from a Bell approved source.
- Submit an MMIR to the Bell Warranty Department referencing this ASB.

Customers who fail to comply with the instructions in this Bulletin before 31 December, 2009 are not eligible for the special warranty credit listed above. There is neither labor nor consumables covered under this bulletin.

MATERIAL:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
212-010-750-133	Tail Rotor Blade Assembly	2 (if required)

Consumable Material:

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator’s consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
MIL-PRF-23377, Type I, Class C	Primer	A/R	C-204
MIL-PRF-85285, Type I	Polyurethane Coating semi- gloss white No. 27925	A/R	C-245
MIL-PRF-85285, Type I	Polyurethane Coating lusterless black No. 37038	A/R	C-245
MIL- C- 87936 TYI 5GAL	Cleaning Compound	A/R	C-318
TURCO W.O.1 GAL	Cleaner	A/R	C-344
Prep-Sol 3919S	Solvent	A/R	C-386
SCOTCHBRITE TY-A	Abrasive pad	A/R	C-407
3M No. 1000	Tape, Masking	A/R	C-420
ABRASIVE 240 GRIT	Abrasive Cloth or paper	A/R	C-423
CCCC0046	Cheesecloth	A/R	C-486

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-412-IPB Illustrated Parts Breakdown
 BHT-412-MM Maintenance Manual
 BHT-412-CR&O Component Repair and Overhaul Manual
 BHT-ALL-SPM

PUBLICATIONS AFFECTED:

BHT-412-MM Maintenance Manual

ACCOMPLISHMENT INSTRUCTIONS:

1. Remove tail rotor hub and blade assembly from the helicopter as per BHT-412-MM.
2. Remove blades from the tail rotor hub as per BHT-412-CR&O.

Remove paint from the spar between the doubler tip to station 40.0 by sanding in a spanwise direction only using 180-grit or finer abrasive cloth (C-423). Use finer grade abrasive cloth once the coat of primer is reached to prevent damaging the spar.

CAUTION

Pay particular attention not to damage the underlying spar, adhesive and aluminum skin during sanding operation. Any damage greater than 0.003 inch deep is cause for rejection and the blade must be removed from service. Do not remove paint from the skin.

3. Ensure that all paint (on the spar only) is removed from the first 2.25 inches of the leading edge (chordwise) and from the B.S 22.5 (doubler tip) to B.S. 40.0. Refer to Figure 1. This will expose the spar up to the fillet between the blade spar and skin. A fillet filled with adhesive runs spanwise between the blade spar and the skin 2.25 inches aft of the blade leading edge, both inboard and outboard sides. The primary area to be inspected runs along the edge of the spar fillet and a half inch forward of this point. (Between 1.75 and 2.25 inch from the leading edge of the blade and from Blade Stations 22.5 to 40.0, both inboard and outboard sides).
4. Wipe area with a clean cloth dampened with alcohol (C-339) and dry thoroughly.
5. Carry out a detailed visual inspection of the spar for corrosion and/or pitting using a 3-power or higher magnifying glass. Anomalies on the steel spar 0.003 inch deep or less must be polished out in accordance with BHT-412-MM.

CAUTION

Any defect greater than 0.003 inch deep is cause for rejection and the blade must be removed from service.

6. If repairs are required, the surface finish of the repair shall be similar to surrounding area.
7. Refinish tail rotor blade as per BHT-412-CR&O.

8. Install tail rotor blades on tail rotor hub and statically balance.
9. Install tail rotor hub and blade assembly on helicopter and carry out operational check as per BHT-412-MM.
10. Annotate records to indicate compliance with this bulletin.

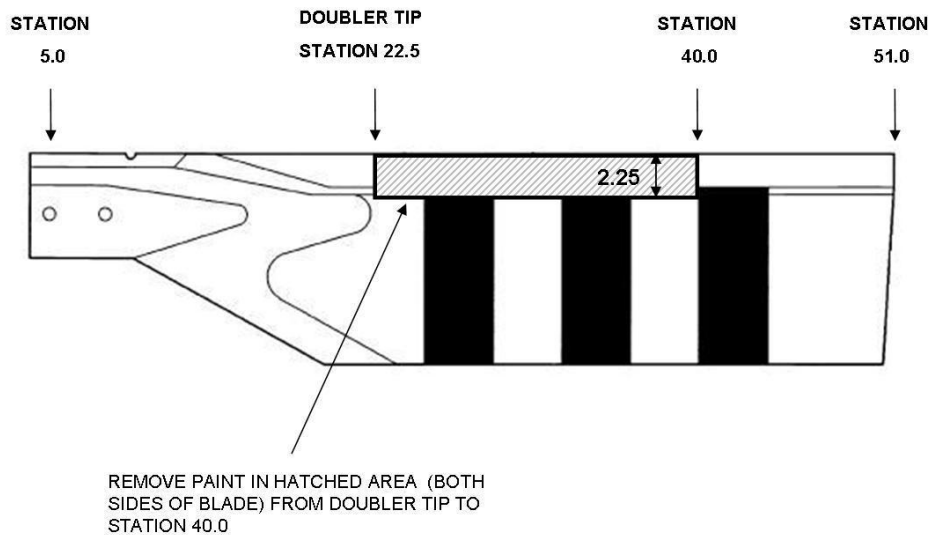


Figure 1