

ALERT SERVICE BULLETIN



A Textron Company

NO. 412-07-125

DATE NOV 15, 2007

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DATE
REV

MODEL AFFECTED: 412 / 412EP

SUBJECT: INCORPORATION OF ROTOR SPEED LIMITATION

HELICOPTERS AFFECTED: Model 412 / 412EP helicopters serial number 33001 through 33213, 36001 through 36459.

[Model 412EP helicopters serial numbers 36460 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: Within 30 days after receipt of this bulletin.

DESCRIPTION:

Recent flight testing and fatigue analysis of the 412 rotor system has determined that with NR below 100% at high altitude, high gross weights and airspeeds at or near VNE the main rotor control system loads increase as the rotor approaches retreating blade stall. This condition can negatively affect component lives.

This Bulletin is issued to advise operator's of a limitation change in the Flight Manual and the installation of a new instrument panel placard. This new placard will advise the pilot to maintain 100% NR at or above 6000 FT HD. Normal governor excursions and maintenance test flights above and below 100% NR is acceptable but continuous operation at or above 6000 FT HD shall be 100% NR.

Bell Helicopter recommends standardizing operations by operating the aircraft at 100% NR at all altitudes during all flight operations. In the past operators operated at 97% NR for a perceived ride quality improvement of the 4/rev vibrations and a slight fuel burn improvement. The 4/rev vibration levels vary with the aircraft configuration, if operators wish to reduce these vibration levels they may install FRAHM damper per BHT-SI- 47 as required.

APPROVAL:

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

MANPOWER:

Approximately 0.5 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 412 Helicopters who comply with the instructions in this Bulletin will be eligible to receive the required decals free of charge from Bell Helicopter. In order to receive the appropriate decal please place the order through a Bell approved source making referencing this bulletin number. Do not order these parts through VISTA Warranty, contact your local spares administrator.

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>
412-075-151-183 ¹	Decal	1

Note 1: Decal can be locally manufactured per Figure 1

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>
3950 Scotchcal	Edge Sealer	A/R	C-349
Commercial	Aliphatic Naphtha	A/R	C-305

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

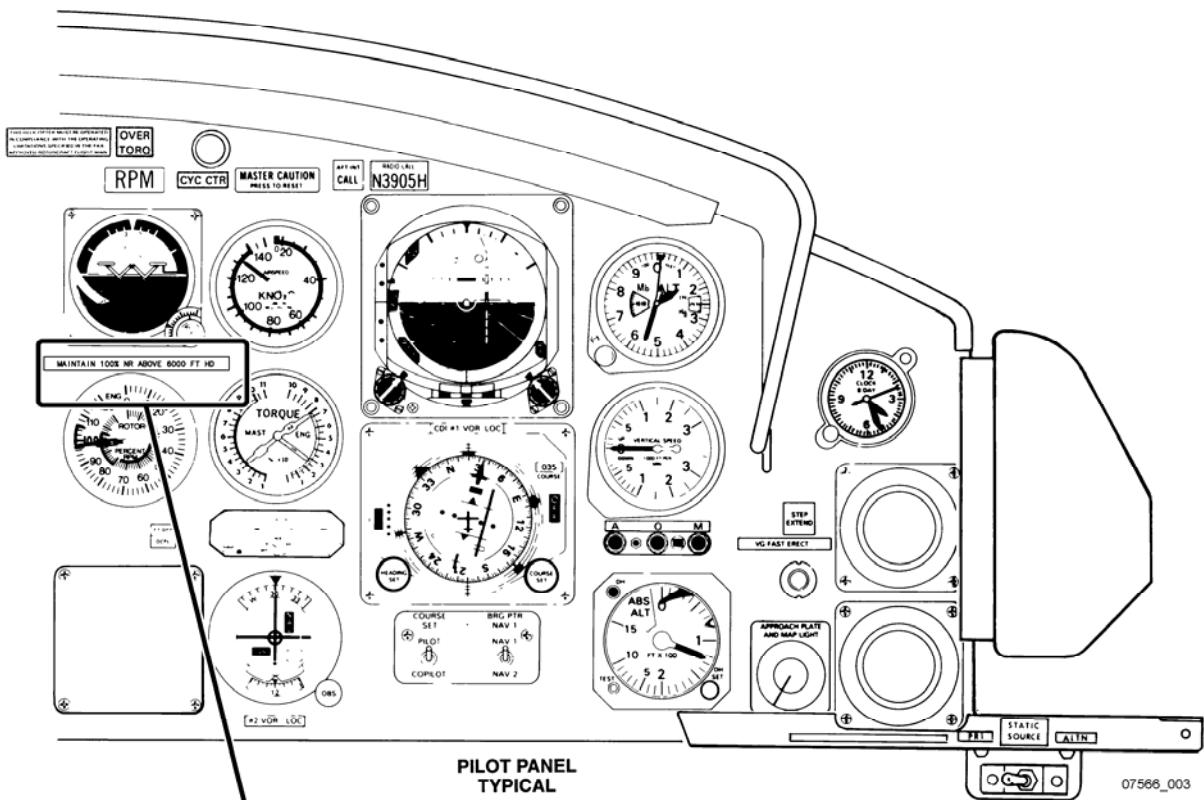
None

PUBLICATIONS AFFECTED:

BHT-412-IPB Illustrated Parts Breakdown
BHT-412-FM Flight Manual

ACCOMPLISHMENT INSTRUCTIONS:

1. Thoroughly wipe surface indicated per Figure 1 or Figure 2 to receive decal with a clean cloth dampened with aliphatic naphtha (C-305)
2. Install decal P/N 412-075-151-183 by peeling back a portion of the protective liner from the adhesive backing; align the decal in the correct position, then press the peeled section to the receiving surface with firm finger pressure. Continue to peel off the liner and apply finger pressure until the decal is securely applied.
3. Apply clear edge sealer (C-349) allowing 0.125 in (3.125 mm) overlap on all sides of the decal.
4. Insert new flight manual revision into the flight manual.
5. Make an entry in the helicopter historical record to show that this Alert Service Bulletin is accomplished.

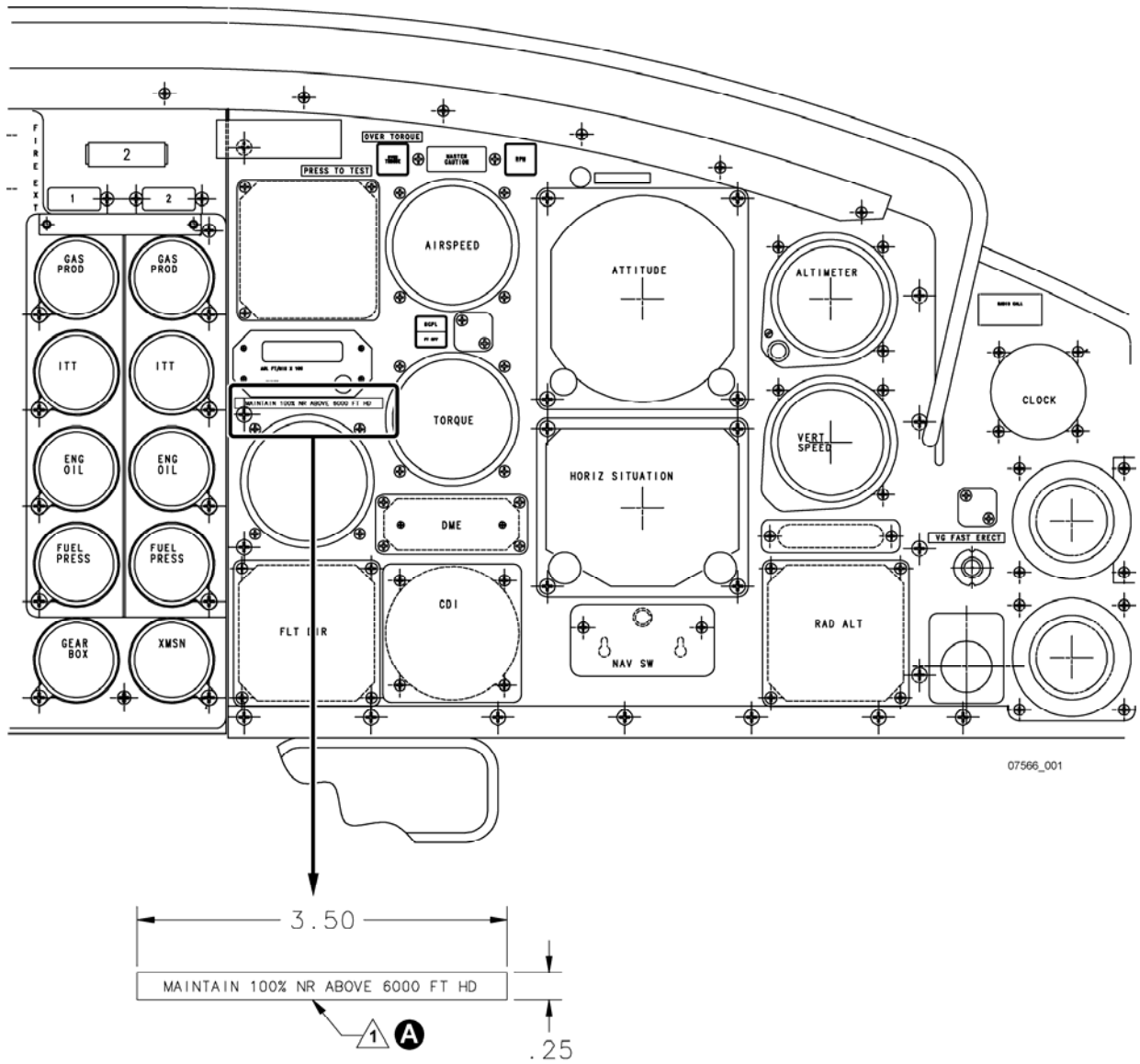


A ADHESIVE (C-349)

NOTES

1. Decal P/N 412-075-151-183. Characters shall be white color No. 37875 and the background shall be black color No. 37038 per Fed Std 595. Characters will be 9 point Spartan located approximately as shown.
2. Helicopters S/N 33001 through 33213 and S/N 36001 through 36086.

Figure 1



A ADHESIVE (C-349)

NOTES

1 Decal P/N 412-075-151-183. Characters shall be white color No. 37875 and the background shall be black color No. 37038 per Fed Std 595. Characters will be 9 point Spartan located approximately as shown.

2. Helicopters S/N 36087 and subsequent.

Figure 2