URGENT

***TB 1-1520-238-20-70**

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

REPLACEMENT OF THE INBOARD BALANCE WEIGHT ATTACHMENT BOLTS ON AH-64A HELICOPTERS

Headquarters, Department of the Army, Washington, D.C.
31 July 1996

NOTE
This TB is in effect until superseded or rescinded.

1. Priority Classification. Urgent.

a. Aircraft in Use. Upon receipt of this Technical Bulletin (TB), the condition status symbol of the cited aircraft will be changed to a **red horizontal dash** // - //. **The red horizontal dash** // - // may be cleared when the task described in paragraph 9 below is completed The affected aircraft/blades shall have this maintenance performed as soon as practical but no later than the task/inspection suspense date. Failure to comply with the requirements of this TB within the time frame will cause the status symbol to be upgraded to a **red** // **X** //.

b. Aircraft in Depot Maintenance. Aircraft will not be issued until compliance with this TB has been completed.

c. Aircraft Undergoing Maintenance. Aircraft will not be issued until compliance with this TB has been completed.

d. Aircraft in Transit.

(1) Surface/Air Shipment. Prior to first flight.

(2) Ferry Status -

(a) Inspect at final destination.

(b) Those aircraft that have a DD Form 250 and are at McDonnell Douglas Helicopter Systems (MDHS) will be inspected prior to ferry to the final destination.

*This TB supersedes TB 1-1520-238-20-70, dated 30 April 1996, and supersedes Aviation Safety Action Message, 121919Z June 96, AH 64-96-ASAM-08.

e. Maintenance Trainers (Category A and B). N/A.

f. Components/Parts in Stock at All Levels (Depot and Others) Including War Reserves - Upon receipt of this TB, the material condition tags of all items in all condition codes listed in paragraph 6 below shall be annotated to read "'Replacement of Inboard Balance Weight Attachment Bolts not complied with

(1) Materiel Located in All Wholesale Depots Including All Satellite Wholesale Depots and War Reserve Depots - Report receipt of this TB in accordance with paragraph 14c(1). Upon receipt of this TB, Depot Commanders and others maintaining wholesale stock shall ensure that serviceable materiel (Condition Codes //A//, //B//, and //C//) is placed in condition code J and tagged with a suspended tag/label - Materiel DD Form 1576/1576-1. Annotate the remarks block with "Replacement of Inboard Balance Weight Attachment Bolts, not complied with. Do not remove existing materiel condition tags. Report compliance with this TB in accordance with paragraph 14d(1).

(2) Materiel Located in Installation/Unit Storage - Report receipt of this TB in accordance with paragraph 14c(2). Upon receipt of this TB, commanders and others maintaining retail stock shall contact the supported aviation organization to perform the inspection required by paragraph 8 and to perform the correction procedures of paragraph 9 on discrepant materiel. Report compliance with this TB in accordance with paragraph 14d(2).

g. Components/Parts in Work - Assembly components listed in paragraph 6 will not be issued until compliance with this TB.

2. Task/Inspection Suspense Date. Within 10 hours/14 days.

3. Reporting Compliance Suspense Date. No later than 9 August 1996 per para 14a of this TB. This publication is effective until 31 July 1998 unless sooner rescinded or superseded.

4. Summary of Problem.

a. There have been cases of the main rotor blade shouldered studs PIN 7-211412071 -3 cracking due to hydrogen embrittlement.

b. For manpower/downtime and funding impacts refer to paragraph 12.

c. The purpose of this TB is to ensure the replacement of the affected shouldered studs.

5. End Items to be inspected. Paragraph 8 lists the affected main rotor blades by serial number.

6. Assembly Components to be Inspected:

NOMENCLATURE	PART NO.	NSN
Blade, Main Rotor	7-311412000-3	1615-01-310-4978
Blade, Main Rotor	7-311412000-3A	1615-01-330-5098
Blade, Main Rotor	7-311412000-5	1615-01-332-0702
Blade, Main Rotor	7-311412000-5A	1615-01-415-6397

7. Parts to be Inspected:

NOMENCLATURE	PART NO.	NSN
Stud, Shouldered	7-211412071-3	5307-01-179-7405
Nut, Self Locking	HS262-624	5310-01-172-5136
Washer, Flat	MS20002-6	5310-00-149-9130
Washer, Flat	HS306-233H	5310-01-173-2221

8. Inspection Procedures. Inspect the main rotor blades for the following affected blade serial numbers:

C10-5462	C10-5463	C10-5464	C10-5465	C10-5466	C10-5467
C10-5468	C10-5469	C10-5470	C10-5471	C10-5472	C10-5473
C10-5474	C10-5475	C10-5476	C10-5477	C10-5478	C10-5479
C10-5480	C10-5481	C10-5482	C10-5483	C10-5484	C10-5485
C10-5486	C10-5487	C10-5488	C10-5489	C10-5490	C10-5491
C10-5492	C10-5493	C10-5494	C10-5495	C10-5496	C10-5497
C10-5498	C10-6499	C10-5500	C10-5501	C10-5502	C10-5503
C10-5504	C10-5505	C10-5506	C10-5507	C10-5508	C10-5509
C10-5510	C10-5511	C10-5512	C10-5513	C10-5514	C10-5515
C10-5516	C10-5517	C10-5518	C10-5519	C10-5520	C10-5521
C10-5522	C10-5523	C10-5524	C10-5525	C10-5526	C10-5527
C10-5528	C10-5529	C10-5530	C10-5531	C10-5532	C10-5533
C10-5534	C10-5535	C10-5536	C10-5537	C10-5538	C10-5539
C10-5540	C10-5541	C10-5542	C10-5543	C10-5544	C10-5545
C10-5546	C10-5547	C10-5548	C10-5549	C10-5550	C10-5551
C10-5552	C10-5553	C10-5554	C10-5555	C10-5556	C10-5557
C10-5558	C10-5559	C10-5560	C10-5561	C10-5562	C10-5563
C10-5582	C10-5583	C10-5584	C10-5585	C10-5586	C10-5587
C10-5588	C10-5589	C10-5590	C10-5591	C10-5592	C10-5593
C10-5594	C10-5595	C10-5596	C10-5597	C10-5598	C10-5599
C10-5600	C10-5601	C10-5602	C10-5603	C10-5604	C10-5605
C10-5606	C10-5607	C10-5608	C10-5609	C10-5610	C10-5611
C10-5612	C10-5613	C10-5614	C10-5615	C10-5616	C10-5617
C10-5618	C10-5619	C10-5620	C10-5621	C10-5622	C10-5623
C10-5624	C10-5625	C10-5626	C10-5627	C10-5628	C10-5629
C10-5630	C10-5631	C10-5632	C10-5633	C10-5634	C10-5635
C10-5636	C10-5637	C10-5638	C10-5639	C10-5640	C10-5641
C10-5642	C10-5643	C10-5644	C10-5645	C10-5646	C10-5647
C10-5648	C10-5649	C10-5650	C10-5651	C10-5652	C10-5653
C10-5654	C10-5655	C10-5656	C10-5657	C10-5658	C10-5659
C10-5660	C10-5661	C10-5662	C10-5663	C10-5664	C10-5665
C10-5666	C10-5667	C10-5668	C10-5669	C10-5670	C10-5671
C10-5672	C10-5673	C10-5674	C10-5675	C10-5676	C10-5677

C10-5678	C10-5679	C10-5680	C10-5681	C10-5682	C10-5683
C10-5684	C10-5685	C10-5686	C10-5687	C10-5688	C10-5689
C10-5690	C10-5691	C10-5692	C10-5693	C10-5694	C10-5695
C10-5696	C10-5697	C10-5698	C10-5699	C10-5700	C10-5701
C10-5702	C10-5703	C10-5704	C10-5705	C10-5706	C10-5707
C10-5708	C10-5709	C10-5710	C10-5711	C10-5712	C10-5713
C10-5714	C10-5715	C10-5716	C10-5717	C10-5718	C10-5719
C10-5720	C10-5721	C10-5722	C10-5723	C10-5724	C10-5725
C10-5726	C10-5727	C10-5728	C10-5729	C10-5730	C10-5731
C10-5732	C10-5733	C10-5734	C10-5735	C10-5736	C10-5737
C10-5738	C10-5739	C10-5740	C10-5741	C10-5742	C10-5743
C10-5744	C10-5745	C10-5746	C10-5747	C10-5748	C10-5749
C10-5750	C10-5751	C10-5752	C10-5753	C10-5754	C10-5755
C10-5756	C10-5757	C10-5758	C10-5759	C10-5760	C10-5761
C10-5762	C10-5763	C10-5764	C10-5765	C10-5766	C10-5767
C10-5768	C10-5769	C10-5770	C10-5771	C10-5772	C10-5773
C10-5774	C10-5775	C10-5776	C10-5777	C10-5778	C10-5779
C10-5780	Cl0-5781	C10-5782	C10-5783	C10-5784	C10-5785
C10-5786	C10-5787	C10-5788	C10-5789	C10-5790	C10-5791
C10-5792	C10-5793	C10-5794	C10-5795	C10-5796	C10-5797
C10-5798	C10-5799	C10-5800	C10-5802	C10-5803	C10-5804
C10-5805	C10-5806	C10-5807	C10-5808	C10-5809	C10-5810
C10-5811	C10-5812	C10-5813	C10-5814	C10-5815	C10-5816
C10-5817	C10-5818	C10-5819	C10-5820	C10-5822	C10-5823
C10-5824	C10-5825	C10-5826	C10-5828	C10-5830	C10-5831
C10-5832	C10-5833	C10-5835	C10-5837	C10-5838	C10-5839
C10-5840	C10-5841	C10-5844	C10-5846	C10-5847	C10-5850
C10-5852	C10-5853	C10-5854	C10-5855	C10-5857	C10-5858
C10-5859	C10-5860	C10-5862	C10-5863	C10-5864	C10-5868
C10-5871	C10-5872	C10-5873			

9. Correction Procedures. Reference TM 1-1520-238-23-3, para 5.16 for correction procedures.

a. Safe the helicopter per TM 1-1520-238-23-1, para 1.57.

NOTE

It is not necessary to remove blade to do the following correction procedure.

b. Replace studs (7-211412071-3) and self-locking nuts (HS262-624) per TM 1-1520-238-23-3, task 5.16.

c. Inspect the washers (MS20002-6) for damage in accordance with TM 1-1 500-204-23. If no damage is present, retain the washers for reuse.

CAUTION

Failure to reinstall the same weights on the same blade from which they were removed will result in an out-of-balance condition of the main rotor hub. Keep the weights together, tag and identify weights according to the blade serial number from which they were removed.

10. Supply/Parts and Disposition.

a. Parts Required. Items cited in paragraph 7 of this TB are required to replace unserviceable items.

b. Requisitioning Instructions. Contact the Logistical POC for a one-time free issue of the required shouldered stud per paragraph 16b.

c. Bulk and Consumable Materials. N/A.

d. Disposition. Dispose of removed parts/components in accordance with normal supply procedures. A QDR is not required.

e. Disposition of Hazardous Material. N/A.

11. Special Tools, Jigs and Fixtures Required. N/A.

12. Application.

a. Category of Maintenance. AVUM, Aircraft downtime will be charged to AVUM.

b. Estimated Time Required.

(1) Total of one-half (1/2) man-hours using one (1) person per blade.

(2) Total of two (2) hours downtime per aircraft.

c. Estimated Cost Impact of Stock Fund Items to the Field.

Nomenclature	Part No./NSN	Quantity Cost Ea.	Total $
Stud, Shouldered	7-211412071-3	(8) $20.12	$160.96
Nut, Self locking	HS 262-624	(8) $2.29	$18.32
Washer, Flat	MS20002-6	(8) $3.41	$27.28
Washer, Flat	HS306-233H	(8) $ .80	$6.40
		Total cost per aircraft:	$212.96

d. TBs/MWOs to be applied prior to or concurrently with this inspection. N/A.

e. Publications which require change as a result of this inspection. N/A.

13. References.

a. TM 1-1520-238-23 series, Aviation Unit and Intermediate Maintenance Manual, AH-64A Helicopter, dated 16 May 94.

b. TM 1 -1500-204-23 series, General Aircraft Maintenance Manuals.

14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft). Upon entering requirements of this TB on DA Form 2408-13-1 on all subject MDS aircraft, forward a priority message, datafax or e-mail to Commander, ATCOM, ATTN: AMSAT-R-X (SOF COMPLIANCE OFFICER), per AR 95-3. Data fax number is DSN 693-2064 or Commercial 3141263-2064. E-mail address is "AMSATRXS @ EMH4.STL.ARMY.MIL." The report will cite this TB number, date of entry in a DA Form 2408-13-1, the aircraft mission design series and serial numbers of aircraft in numerical order.

b. Task/Inspection Reporting Suspense Date (Aircraft). N/A.

c. Reporting Compliance Suspense Date (Spares).

(1) Materiel in Wholesale Depot Storage - Report receipt of this message to the wholesale materiel (Spares! point of contact listed in paragraph 16c within 3 working days from the date of this TB.

(2) Materiel in Retail Storage - Report receipt of this TB to the logistical point of contact listed in paragraph 16b within 7 days from the date of this *TB.*

d. Task/Inspection Reporting Suspense Date (Spares).

(1) Materiel in Wholesale Depot Storage - Report compliance with this TB to the wholesale materiel point of contact (Spares} listed in paragraph 16c within 7 days of the date of this TB. Provide an estimate of the cost reimbursable funding required to move the Items listed in paragraph 6 to a work area, unpack the materiel, repack the materiel after inspection by ATCOM inspectors, and return the materiel to storage. Report the serial numbers, by original serviceable condition code, of all materiel placed in condition code J.

(2) Materiel in Retail Storage - Report compliance with this TB to the logistical point of contact in paragraph 16b within 14 days of the date of this message. Report the quantity inspected by condition code and the resulting condition code. Report the serial numbers of all materiel requiring correction.

e. The following forms are applicable and are to be completed in accordance with DA PAM 738751, 15 June 92

(1) DA Form 2408-5-1, Equipment Modification Record Blade, Main Rotor.

(2) DA Form 2408-13, Aircraft Status Information Record.

(3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.

(4) DA Form 2408-15, Historical Record for Aircraft.

(5) DD Form 1574 (Yellow Tag) for in stock items that are determined to be serviceable. (Mark "inspected serviceable" in accordance with this TB.)

(6) DD Form 1575 (Brown Tag) for in stock items in suspended status awaiting inspection. (Mark "suspended" in accordance with this TB.)

(7) DD Form 1577 (Red Tag) Unserviceable (Condemned) for in stock items that are determined to be unserviceable. (Mark "Unserviceable" in accordance with this TB.)

(8) DD Form 1577-2 (Green Tag) Unserviceable (Reparable) for in stock items that are determined to be reparable. (Mark "Unserviceable" in accordance with this TB.)

15. Weight and Balance. N/A.

16. Points of Contact.

a. Technical Point of Contact for this TB is Mr. Lawrence Powitzky, AMSAT-R-EIA, DSN 693-9869 or commercial (314) 263-9869.

b. Logistical Point of Contact for this TB is Mr. Jim Mason or Ms. Pam Brady, SFAE-AV-AAH-LF, DSN 693-1947/0877 or commercial (314) 263-1947/0877.

c. Wholesale Materiel Point of Contact (Spares) for this TB is Mr. Tullus Samples, AMSAT-ISAAA, DSN 693-5969 or commercial (314) 263-5969, and fax DSN 693-5936 or commercial (314) 263-5936.

d. Forms and Records Point of Contact for this TB is Ms. Ann Waldeck, AMSAT-I-MDM, DSN 490-2318 or commercial (314) 260-2318.

e. Safety Point of Contact for this message is Mr. Jim Wilkins, AMSAT-R-X, DSN 693-2258 or commercial (314) 263-2258.

f. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ron Van Rees, AMSAT-I-IAF, DSN 693-3659/ 3826 or commercial (314) 263-3659/3826.

g. After hours contact ATCOM Command Operations Center, DSN 693-2066/ 2067 or commercial (31 4) 263-2066/ 2067.

17. Reporting of Errors and Recommending Improvements. You can help improve this TB. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes of Publications and blank forms) directly to: Commander, U.S. Army Aviation and Troop Command, ATTN.: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes by E-mail directly to <mtmp@st-louis-emh7.army.mil>. A reply will be furnished directly to you.

By Order of the Secretary of the Army:

Official:

JOEL B. HUDSON
Acting Administrative Assistant to the Secretary of the Army
02153

DENNIS J. REIMER
General, United States Army
Chief of Staff

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31-E, block no. 3577, requirements for TB 1-1520-238-20-70.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

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DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

THE METRIC SYSTEM AND EQUIVALENTS

'NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

'VEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

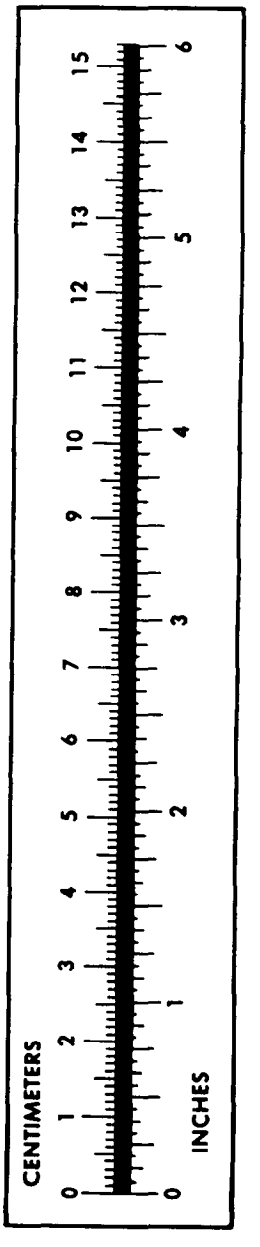
TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
ıts	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
lometers per Liter	Miles per Gallon	2.354
meters per Hour	Miles per Hour	0.621



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