URGENT

TB 1-1520-238-20-115

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

INSPECT TAIL ROTOR SWASHPLATE ASSEMBLY, ALL AH-64 SERIES AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.

12 February 2001

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. **Priority Classification. URGENT.**

NOTE

In accordance with AR 95-1, paragraph 6-6A, MACOM commanders may authorize temporary exception from TB requirements. Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequences of continued aircraft operation.

a. Aircraft in Use. SOF AH-64-01-02 placed all AH-64series aircraft on a red ***//x//*** condition status symbol. The red ***//x//*** may be cleared when both the inspection of paragraph 8 and the correction of paragraph 9 are completed. Upon receipt of this TB, make the following entry on the DA Form 2408-13-1. Enter a red horizontal dash ***//–//*** status symbol with the following statement: “Inspect AH-64 aircraft in accordance with TB 1-1520-238-20-115) no later than 29 December 2000.” Clear the red horizontal dash ***//–//*** entry when the procedures in paragraphs 8 and 9 are completed. The affected aircraft shall be inspected as soon as practical but no later than 29 December 2000. Commanders who are unable to comply with the requirements of this TB within the timeframe specified will upgrade the affected aircraft status symbol to a red ***//x//***.

b. Aircraft in Depot Maintenance. Same as paragraph 1.a. Depot commanders will not issue aircraft until they are in compliance with this TB.

c. Aircraft Undergoing Maintenance. Commanders and facility managers will not issue aircraft until they are in compliance with this TB.

d. Aircraft in Transit.

(1) Surface/Air Shipment. Same as paragraph 1.a.

(2) Ferry Status.

(a) Same as paragraph 1.a.

(b) Boeing-Mesa will inspect DD 250 aircraft prior to those aircraft departing for ferry to final destination.

e. Maintenance Trainers (Category A and B). Same as paragraph 1.a.

f. Component/Parts in Stock at All Levels (Depot and Others) Including War Reserves. Upon receipt of this TB, depot and materiel activity commanders will ensure the material condition tags of all items in all condition codes listed in paragraphs 6 and 7 are annotated to read "TB 1-1520-238-115, Inspect Tail Rotor Swashplate Assembly, not complied with."

(1) Wholesale Stock. Report receipt of this TB in accordance with paragraph 14.c.(1). Upon receipt of this TB, depot and materiel activity commanders will ensure that all serviceable items (condition codes //a//, //b//, //c//, //d//, and //e//) listed in paragraphs 6 and 7 located in wholesale depot storage are placed in condition code //j// and tagged with a suspended tag/label – Materiel, DD Form 1576/DD Form 1576-1. Do not remove original condition tags. Report compliance with this TB in accordance with paragraph 14.d.(1).

(2) Retail Stock. Upon receipt of this TB, commanders and facility managers maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the procedures required in accordance with paragraphs 8 and 9 on suspect materiel. Dispose of discrepant material in accordance with paragraph 10. Report compliance with this TB in accordance with paragraph 14.d.(2).

g. Components/Parts in Work (Depot Level and Others). Depot and other maintenance activity commanders will ensure items listed in paragraphs 6 and 7 are not issued until they are in compliance with this TB.

2. **Task/Inspection Suspense Date.** Complete the inspection in accordance with paragraph 8 no later than 29 December 2000 and report in accordance with paragraph 14.b.

3. **Reporting Compliance Suspense Date**. Report compliance in accordance with paragraph 14.a. no later than 17 January 2001.

4. **Summary of the Problem.**

a. Safety of Flight (SOF) message AH-64-01-02 immediately grounded all AH-64 series aircraft due to a tail rotor swashplate assembly found to have excessive play between the rotating and non-rotating swashplates. In addition to grounding the AH-64 fleet, SOF AH-64-01-02 also required the identification and removal of twenty-eight (28) swashplates that are potentially discrepant. Investigation has determined that additional swashplates are suspect. This TB includes all suspect swashplate assemblies and bearings, including those addressed in SOF AH-64-01-02.

b. For manpower/downtime and funding impacts, see paragraph 12.

c. The purposes of this TB are as follows:

(1) Inspect all AH-64 aircraft to identify suspect swashplate assemblies and swashplate bearings.

(2) Remove flight restrictions from AH-64 aircraft that do not have suspect swashplate assemblies or swashplate bearings installed.

5. **End Items To Be Inspected**. All AH-64 series aircraft.

6. **Assembly Components To Be Inspected.**

Part Number and/or NSN	Nomenclature
7-311527038-15,-17,-19 1615-01-312-2388 7-311527038-901 1615-01-326-0728	Tail Rotor Swashplate Assembly

7. **Parts To Be Inspected**. N/A.

8. **Inspection Procedures**.

a. As a follow-up to SOF AH-64-01–02, perform the following:

(1) Review DA Form 2408-16; identify, record, and report in accordance with paragraph 14.b. both the serial number of tail rotor swashplate installed on aircraft and the serial number of bearing installed in swashplate.

(2) Physically inspect aircraft to determine whether the serial number of the swashplate installed is the same as the serial number identified on DA Form 2408-16. If the serial numbers do not match, contact the 2410 hotline to determine the swashplate bearing serial number.

(3) If tail rotor swashplate installed is one of below-listed suspect serial numbers or if DA Form 2408-16 or 2410 hotline data indicates that any swashplate contains one of the listed suspect bearing serial numbers, perform corrective action in accordance with paragraphs 9.a. and 9.b.

NOTE

The swashplate assemblies previously identified in SOF AH-64-01-02 that remain suspect are included in the list below. Swashplate assemblies that are no longer suspect have been removed.

NOTE

Some swashplate markings and DA Forms 2408-16 may reflect only the last 4 digits of the serial number and will not contain the “009999” prefix.

Swashplate serial numbers are as follows:

2731729301	0099990010	0099990021	0099990044
0099990057	0099990074	0099990090	0099990098
0099990101	0099990104	0099990107	0099990110
0099990148	0099990164	0099990170	0099990177
0099990190	0099990192	0099990197	0099990199
0099990208	0099990234	0099990235	0099990238
0099990242	0099990245	0099990257	0099990270
0099990284	0099990294	0099990299	0099990301
0099990302	0099990306	0099990307	0099990357
0099990358	0099990362	0099990389	0099990392
0099990394	0099990399	0099990404	0099990405
0099990412	0099990416	0099990417	0099990421
0099990422	0099990434	0099990436	0099990445
0099990474	0099990475	0099990477	0099990483
0099990484	0099990491	0099990494	0099990500
0099990503	0099990520	0099990521	0099990535
0099990541	0099990543	0099990544	0099990557
0099990560	0099990563	0099990582	0099990597
0099990611	0099990616	0099990620	0099990623
0099990629	0099990641	0099990652	0099990691
0099990709	0099990712	0099990766	0099990770
0099990784	0099990793	0099990840	0099990916

NOTE

The following suspect bearings may be installed in swashplates in the field. Records check could not verify serial number of swashplate in which these bearings are installed. Any swashplate containing these bearings shall be removed per paragraph 9 of this TB.

Bearing serial numbers are as follows:

0591500194	0591550227	0623550256
0623550596	0623550661	0623550691

b. If the aircraft does not have one of the listed tail rotor swashplates or the DA Form 2408-16 does not contain one of the swashplate bearings proceed to paragraph 9c.

9. **Correction Procedures.**

a. All AH-64 aircraft that have suspect tail rotor swashplate assemblies and/or swashplate assemblies with suspect bearings installed are grounded until the swashplate assembly is replaced.

b. If the aircraft has a listed suspect tail rotor swashplate assembly or DA Form 2408-16 indicates that a suspect swashplate bearing is installed or if bearing serial number cannot be determined, remove suspect swashplate, ship to the following address: Commander, Defense Distribution Center, ATTN: SOF AH-64-01-03, 540 First Street SE, Corpus Christi, TX 78419-5255.

c. If the aircraft does not have a suspect tail rotor swashplate installed, clear the red ***//x//*** aircraft status resulting from SOF AH−64−01−02 and clear the red horizontal //−// on the DA Form 2408-13.

10. **Supply/Parts and Disposition.**

NOTE

HQDA-ODCSOPS will prioritize units and repair parts distribution in a separate, follow-on TB.

a. Parts required. Items cited in paragraph 6 may be required in order to replace defective items.

b. Requisitioning instructions. Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) “X0K” (“x-ray−zero−kilo”).

NOTE

Project code “X0K” (“x-ray−zero−kilo”) is required in order to track and establish a database of stock fund expenditures incurred by the field as a result of SOF actions.

c. Bulk and consumable materials.

Part Number and/or NSN	Nomenclature
7920-00-205-1711, A-A-2522	Rag, Wiping
6850-01-377-1809, P-D-680TY111	Solvent, Dry Cleaning
8040-01-168-0077, AMS3374	Adhesive
8135-00-142-9016, A-A-549	Cushioning Material
8010-01-127-5250, TT-P-1757	Primer Coating
7510-00-551-2902, ASTM D 548610 5486M	Tape, Pressure Sensitive
7920-01-133-2442, 63	Pad, Scouring
5315-00-234-1854, MS24665-153	Pin, Cotter
5315-00-241-7330, NASM24665-304	Pin, Cotter

d. Disposition. Tag the suspect part with DD Form 1577-2/-3 as code //J// and ship to the address listed in paragraph 9.b.

e. Disposition of Hazardous Material. In accordance with Environmental Protection Agency (EPA) directives, as implemented by your servicing environmental coordinator (AR 200-1).

11. **Special Tools and Fixtures Required.** N/A.

12. **Application.**

a. Category of Maintenance. AVUM. Aircraft downtime will be charged to depot maintenance. Report aircraft non-mission capable maintenance (NMCM) while undergoing inspection and correction in accordance with this TB.

b. Estimated Time Required.

(1) For inspection:

(a) Total of 0.5 man-hour using one (1) person.

(b) Total of 0.5 hour downtime for one end item.

(2) For replacement:

(a) Total of 20 man-hours using two (2) persons.

(b) Total of 10 hours downtime for one end item (including MOC).

c. Estimated Cost Impact To the Field.

Part Number and/or NSN	Nomenclature	QTY	Total $
7-311527038-15, -17, -19, 1615-01-312-2388	Tail Rotor Swashplate Assembly	1 EA	$18,994.27
or 7-311527038-901, 1615-01-326-0728	Tail Rotor Swashplate Assembly	1 EA	$19,094.86
			Maximum total cost per aircraft = $19,094.86

d. TB/MWOs To Be Applied Prior To Or Concurrently With This Inspection. N/A.

e. Publications Which Require a Change As a Result of This Inspection. N/A.

13. **References**.

a. DA PAM 738-751.

b. TM 1-1520-238-23.

c. Interactive Electronic Technical Manual (IETM): TM 1-1520-Longbow/Apache IETM, CD No. 1, Version 3.1.2, data 19 November 1998, CD date 1 December 1998 or subsequent.

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, commanders will forward a priority message, datafax or e-mail to CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, in accordance with AR 95-1. Datafax number is DSN 897-2111 or (256) 313-2111; e-mail address is safeadm@redstone.army.mil. The report will cite this TB number, date of entry in 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). Upon completion of inspection, commanders will forward a priority message to PEO AVN, SFAE-AV-AAH-LF, DSN 897-4244 or (256) 313-4244, datafax DSN 897-4343 e-mail john.patton@peoavn.redstone.army.mil (Logistics POC listed in paragraph 16). The report will cite this TB number, date of inspection, aircraft serial number, tail rotor swashplate serial number (if identified by this TB), swashplate bearing serial number (as identified on DA Form 2408-16), aircraft and component hours, and results of the inspection. Inspection and reports will be completed no later than 29 December 2000.

c. Reporting TB Receipt (Spares).

(1) Material in wholesale depot storage. Depot and materiel activity commanders will report receipt of this TB by e-mail or datafax to the Wholesale Material (Spares) point of contact listed in paragraph 16.c. no later than 26 December 2000. Provide local point of contact.

(2) Material in retail storage. N/A.

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

(1) Material in wholesale depot storage. Depot and materiel activity commanders will report compliance with this TB to the wholesale material point of contact (spares) listed in paragraph 16.cc no later than 29 December 2000. Provide the cost of compliance with this TB to include an estimate of the cost reimbursable funding required to move serviceable items on hand listed in paragraphs 6 and 7 to a work area, unpack the material, repack the material after inspection by AMCOM inspectors, and return the material to storage, as appropriate. Report, by original serviceable condition code, the quantity of material placed in condition code //j//. Report by e-mail or datafax and provide local point of contact.

(2) Material in retail storage. Commanders and facility managers will report compliance with this TB to the logistical point of contact in paragraph 16.b. no later than 29 December 2000. Report the quantity inspected by condition code and the resulting condition code. Report by e-mail or datafax and provide local point of contact.

e. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 March 1999.

NOTE

ULLS-A users will use applicable “E” forms.

(1) DA Form 2408-5-1, Equipment Modification Record (Tail Rotor Swash Plate Assembly).

(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) DA Form 2408-16, Aircraft Component Historical Record.

(6) DA Form 2410, Component Removal and Repair/Overhaul Record (only if swashplate assembly is removed/replaced).

(7) DD Form 1574/DD Form 1574-1, Serviceable Tag/Label – Materiel (color yellow) (annotate remarks block with “Inspected serviceable in accordance with TB 1-1520-238-20-115”).

(8) DD Form 1575/DD Form 1575-1, Suspended Tag/Label – Materiel (color brown) (annotate remarks block with “Suspended in accordance with TB 1-1520-238-20-115”).

(9) DD Form 1577-2/DD Form 1577-3, Unserviceable (Reparable) Tag/Label – Materiel (color green) (annotate remarks block with “Unserviceable in accordance with TB 1-1520-238-20-115”).

15. **Weight and Balance.** N/A.

16. **Points of Contact**.

a. Technical points of contact are as follows:

(1) Primary technical point of contact is Andy Fabery, AMSAM-RD-AE-I-P-A, DSN 897-4802 or (256) 313-4802. Datafax is 897–4923; e-mail is “andy.fabery@redstone.army.mil”.

(2) Alternate technical point of contact is Ken Muzzo, AMSAM-RD-I-P-A, DSN 897-4812 or (256) 313-4812. Datafax is 897-4923; e-mail is “kenneth.muzzo@redstone.army.mil”.

b. Logistical point of contact is John Patton, SFAE-AV-AAH-LF, DSN 897-4244 or (256) 313-4244. Datafax is DSN 897-4343; e-mail is “john.patton@peoavn.redstone.army.mil”.

c. AMCOM War Room point of contact Tom Pieplow, DSN 897-1636 or 897-2020 or (256) 313-1636 or 313-2020; e-mail is “thomas.pieplow@redstone.army.mil”.

d. Wholesale Material point of contact (Spares) is Eric Moton, AMSAM-MMC-VS-AA, DSN 897-1351 or (256) 313-1351. Datafax is DSN 897-1557; e-mail is “eric.moton@redstone.army.mil”.

e. Forms and Records point of contact is Ann Waldeck, AMSAM-MMC-RE-FF, DSN 746-5564 or (256) 876-5564. Datafax is DSN 746-4904; e-mail is “ann.waldeck@redstone.army.mil”.

f. Safety points of contact are as follows:

(1) Primary – Frank Rosebery (SAIC), AMSAM-SF-A, DSN 788-8631 or (256) 842-8631. Datafax is DSN 897-2111 or (256) 313-2111; e-mail is “frank.rosebery@redstone.army.mil”.

(2) Alternate – Howard Chilton, AMSAM-SF-A, DSN 897-2068 or (256) 313.2068. Datafax is DSN 897-2111 or (256) 313-2111; e-mail is “howard.chilton@redstone.army.mil”.

g. Foreign Military Sales (FMS) recipients requiring clarification of actions advised by this TB should contact one of the following (Huntsville, AL, time is GMT minus 6 hours):

(1) CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0410 or commercial (256) 313-0410, e-mail “joseph.wittstrom@redstone.army.mil”.

(2) Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0411 or commercial (256) 313-0411, e-mail “ronnie.sammons@redstone.army.mil”.

h. After hours, contact the AMCOM Command Operations Center (COC) DSN 897-2066/7 or commercial (256) 313-2066/7.

17. Reporting of Errors and Recommending Improvements. You can improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the following address: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by e-mail directly to "ls-lp@redstone.army.mil". A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual.

By Order of the Secretary of the Army:

Official:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0103014

DISTRIBUTION:
To be distributed in accordance with Initial Distribution Number (IDN) 313961 requirements for TB 1-1520-238-20-115.

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>
To: <mpmt%avma28@st−louis−emh7.army.mil>

Subject: DA Form 2028

1. ***From:*** Joe Smith
2. *Unit:* home
3. ***Address:*** 4300 Park
4. ***City:*** Hometown
5. ***St:*** MO
6. ***Zip:*** 77777
7. ***Date Sent:*** 19−OCT−93
8. ***Pub no:*** 55−2840−229−23
9. ***Pub Title:*** TM
10. ***Publication Date:*** 04−JUL−85
11. *Change Number:* 7
12. *Submitter Rank:* MSG
13. ***Submitter FName:*** Joe
14. *Submitter MName:* T
15. ***Submitter LName:*** Smith
16. ***Submitter Phone:*** 123−123−1234
17. ***Problem:*** **1**
18. *Page:* 2
19. *Paragraph:* 3
20. *Line:* 4
21. *NSN:* 5
22. *Reference:* 6
23. *Figure:* 7
24. *Table:* 8
25. *Item:* 9
26. *Total:* 123
27. ***Text:***

This is the text for the problem (below line 27).

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.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER	SIGN HERE

TEAR ALONG PERFORATED LINE

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

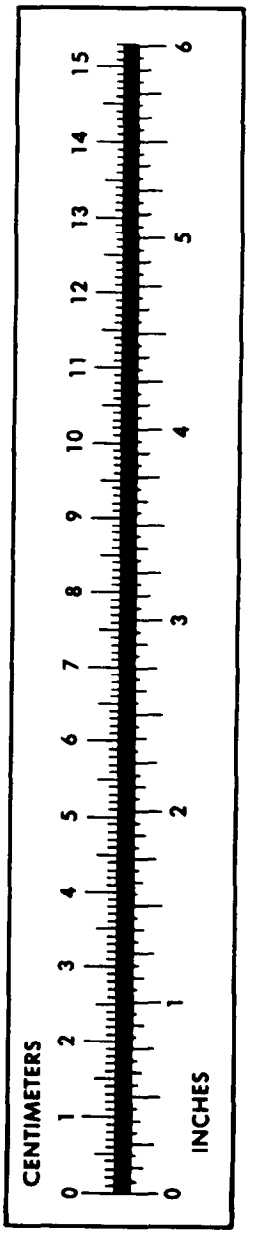
TEMPERATURE

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



PIN: 078846-000