DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

NAVIGATION TAIL LIGHT WIRE HARNESS INSPECTION/REWORK FOR AH-64A AIRCRAFT

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

17 JULY 1988

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NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL 17 JULY 1990 UNLESS SOONER RESCINDED OR SUPERSEDED.

1. Summary. Field reports indicate a high failure rate for the tail light wire harness (W154). Investigation has revealed the over/under crimping of the 905 pins and vibration induced failures.

2. Purpose. To provide to the field, instructions for the inspection and rework, if required, of the navigation tail light wire harness. The rework will strengthen the two wires which have been breaking and causing tail light failure.

3. Priority Classification. ROUTINE.

a. Aircraft In Use. Upon receipt of this Technical Bulletin, the condition status symbol of all affected aircraft will be changed to a Red dash " - ". The Red dash " - " may be cleared when the inspection of paragraph 10 is accomplished or the rework of paragraph 11 is completed. The affected aircraft shall be inspected no later than 30 days after receipt of this Technical Bulletin. If wire harness W154 has heat shrink sleeving installed no further action is required. If no heat shrink sleeving is installed, the rework shall be completed during the next scheduled phase Maintenance inspection.

b. Aircraft in Depot Stock. N/A.

c. Aircraft Undergoing Maintenance. Same as paragraph 3a.

d. Aircraft in Transit. Same as paragraph 3a after arrival at final destination.

*This publication supersedes, TB 55-1520-238-20-24, dated, 8 December 1987.

e. Maintenance Trainers (Category B). Complete the requirements of paragraphs 10 and 11 (if required) no later than 30 days after receipt of this Technical Bulletin.

f. Component/Parts at all levels. N/A.

4. End Items To Be Inspected.

All AH-64A aircraft serial numbers 82-23355 through 82-23365, 83-23787 through 83-23834, 84-24200 through 84-24311, and 85-25351 through 85-25389. Aircraft 85-25390 and subsequent will have been serviced on the production line.

b. All Category B Trainers.

5. Assembly Components To Be Inspected. Navigation Light System 7-116122062.

6. Parts To Be Inspected. Wire harness W154.

7. Application.

Category Of Maintenance. AVUM . Aircraft downtime will be charged to AVUM.

b. Time Required To Inspect.

(1) A total of . 5 man-hour using one (1) man.

(2) A total of .5 hour downtime for one end item.

8. Supply/Parts and Disposition.

NOMENCLATURE	PART NO.	NSN
Wire, elec. 2 @ 24 in. ea.	M22759/34-20-9	6145-01-111-0754
Terminal, ea. 2	MS25036-102	5490-00-204-8966
Contact, ea. 2	MS39029/22-192	5999-01-063-1868
Sleeving, 4 @ 1.5 in.	M23053/5-104-1	5970-00-983-7955*
Sleeving, 2 @ 1.0 in.	M23053/5-106-9	5970-00-814-2878*

* or equivalent

9. Special Tools, Jigs and Fixtures Required.

NOMENCLATURE	PART NO	NSN
Basic Crimping Tool	M22520-7-01	5120-00-133-1747
Positioner	M22520/7-11	5120-01-122-1201
Installation/Removing Tool	M81969/16-01	5120-00-132-6328
Basic Crimping Tool	M22520/5-01	5120-00-132-6913
Die	M22520/5-100	5120-00-126-0860
Compressed Air/N2 Heat Gun	M83507/14-01	4940-01-037-1413

10. Inspection Procedures.

a. Remove access panel R578.

b. If wire harness W154 has heat shrink sleeving installed on the tail light wires (L9D22 and L5H22), no further action is required. Reinstall access panel R578.

c. If wire harness W154 does not have shrink sleeving installed on the tail light wires (L9D22 and L5H22), reinstall access panel R578 and enter on DA Form 2408-13 that the corrective requirements of this Technical Bulletin will be accomplished during the next phase inspection. During the phase inspection accomplish the corrective procedures contained in paragraph 11 of this Technical Bulletin.

11. Correction Procedures.

Remove the vertical stabilizer tip assembly (7-311122600-7) (TM 55-1520-238-23).

b. Remove wires L9D22 and L5H22 from the navigation tail light (XDS7). Cut string ties and remove clamps securing wires along distance of wires from lug to splice.

c. Install MS25036-102 terminal on one end of each 24 inch length of M22759/34-20-9 (MIL-W-22759/34) electrical wire (TM 55-1500-323-24) .

d. Cut 4 lengths of MS23053/5-104-9, each 1.5 inches long. Slip 1 piece of sleeving over each new wire adjacent to lug (Fig. 1) Shrink sleeving in place (TM 55-1500-323-24).

e. Slip another length of MS23053/5-104-9 over wire and newly applied sleeve, adjacent to lug. Shrink sleeving in place (TM 55-1500-323-24). This will form 2 layers of shrink sleeve butting up next to lug (Fig. 1).

f. Cut 2 lengths of MS23053/5-106-9 sleeving, each 1 inch long. Slip 1 piece of sleeving over each new lug and newly applied sleeving. MS23053/5-106-9 sleeving should extend over lug insulation (Fig 1). Shrink sleeving in place (TM 55-1500-323-24) .

g. Install MS39029/22-192 contact on open end of M22759/34-20-9 wire.

h. Identify new wires.

i. Insert new wires into splices XDS7SP1 and XDS7SP2.

j. Connect new wires to navigation tail light (XDS7).

k. Check for electrical continuity (TM 55-1500-323-24).

1. Install string ties and securing clamps.

m. Inspect (TI).

Reinstall vertical stabilizer tip assembly (TM 55-15%-238-23) .

o. Reinstall access panel R578 (TM 55-1520-238-23).

Perform Navigation lights Operational Check (TM 55-1500-238-T) .

12. Weight and Balance. N/A.

13. Recording and Reporting.

a. Reporting suspense date (aircraft). N/A.

b. Reporting Suspense date (spares). N/A.

c. The following forms are applicable and are to be completed in accordance with DA PAM 738-751.

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

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

14. Points of Contact for this Technical Bulletin.

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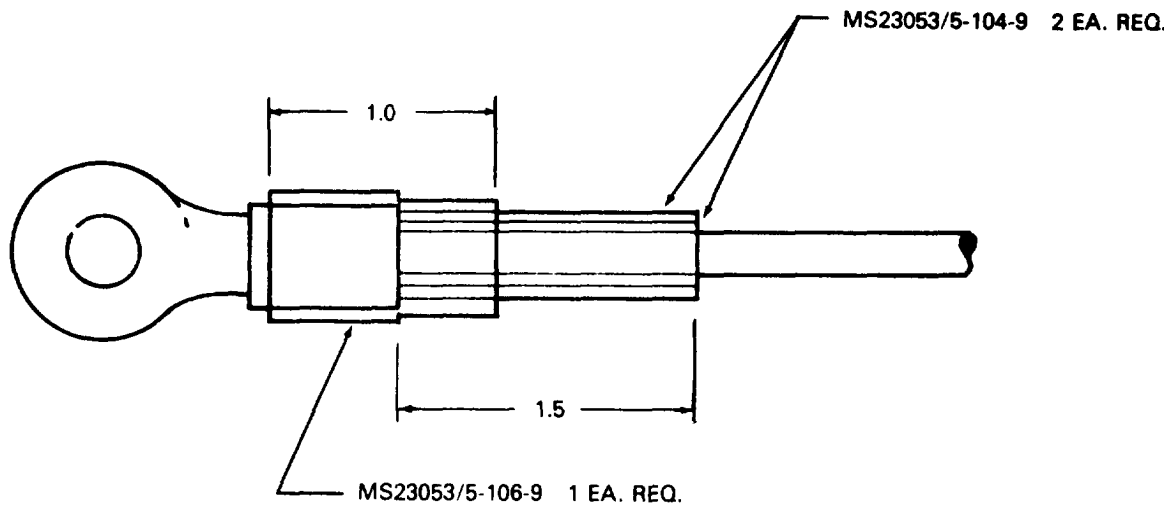

Figure 1.

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

R. L. DILWORTH
Brigadier General, United States Army
The Adjutant General

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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

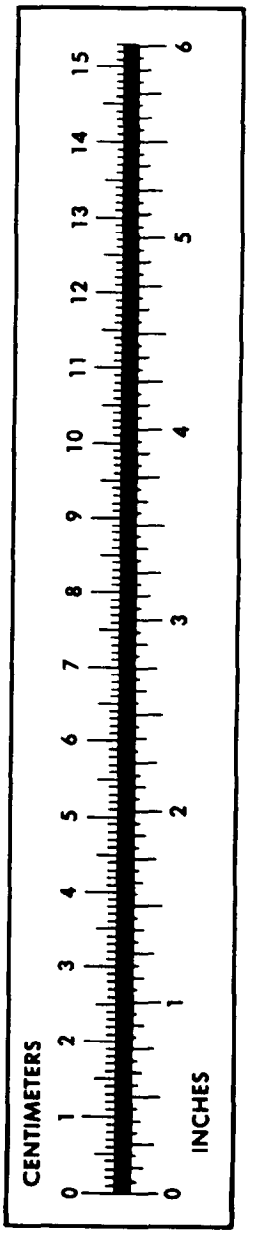
TEMPERATURE

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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