

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

RIBBON BRIDGE INTERIOR BAY AND RAMP BAY
ROADWAY TO BOW PONTON LATCHES

Headquarters, Department of the Army, Washington, DC

30 November 1981

1. Purpose. This bulletin is applicable to the latches on Bow Pontons for Bays used on the Ribbon Bridge Systems managed by the US Army Troop Support and Aviation Materiel Readiness Command and provides guidance for replacing bow pontons.

2. Scope. This bulletin applies to users of the Ribbon Bridge System.

3. General. *a.* The Ribbon Bridge System was initially fielded with a short roadway to bow ponton latch NSN 5420-00-507-7051 (97403/13218E4357) which measured nine inches total length. This latch is known as the short latch. In 1978, an Engineering Change was approved to change the interior and rampbay latch receptacles by relocating the receptacle flush with the edge of the bay instead of originally protruding about two inches beyond the edge of the bay. This change made it necessary to introduce a new roadway to bow ponton latch, 97403/13222E0545, which measures 10 1/4 inches total length. This latch is known as the long latch. The purpose of the relocation of the receptacle is to make the receptacle less vulnerable to damage when the bay comes in contact with a hard surface during launch and retrieval operations.

b. At the time the Engineering Change was applied to the bow ponton latches, 413 interior and ramp bays had been produced, and therefore, are in their original configuration of short 9" latches with protruding receptacle. The serial numbers of the bays found on the end item data plate are as follows:

Interior Bays-

CONDEC Contract DAAK01-73-C-5996
S/N 001 to 250

CONDEC Contract DAAK01-77-C-5660
S/N 2307-001 to 2307-066

Space Contract DAAK01-76-C-5613
S/N 66981-001 to 66981-016

Ramp Bays-

CONDEC Contract DAAK01-73-C-5996
S/N 001-50

CONDEC Contract DAAK01-77-C-5660
S/N 2306-001-2306-025

Space Contract DAAK01-76-C-5613
S/N 6698R-001-6698R-006

c. The retrofitting of the 413 bays identified above to the new configuration will not be applied based on results from a cost analysis study conducted by TSARCOM.

d. Both the old style short latch bays and the new style long latch bays will be kept in their original configuration. This means that a bay with short latches that requires a bow ponton change must be replaced in entirety because the old style bow ponton is no longer available. The mixing of pontons with short latches with pontons with the new longer latches will not be permitted. If an old style bow ponton becomes damaged beyond repair, the entire bay will be reported to this Command, ATTN: DRSTS-SDDMT, on a DA Form 3590 and TSARCOM will furnish disposition instructions. Since the replacement of pontons has only occurred two times in over five years of fielding experience, only minimal replacement actions are anticipated.

4. Safety. Following are areas of concern for safety hazards: *a.* Use of a bay with damaged receptacles. A bay with damaged receptacles could fall under load and result in a bow ponton folding upward and into personnel or equipment on the bridge. If this did happen, serious injury or death and equipment failure would be probable. The use of a bay with damaged receptacles is not likely, however, because of the high visibility of the latch/receptacle during the bay pre-inspection or bridge set up. These checks are required to be performed by the operator and raft commanders prior to use and prior to actual connection of the latch.

b. Use of a bay with the wrong latch installed. A short latch, if installed on the wrong bay, will not reach and cannot be connected. This condition would be immediately apparent to the operator who tried to connect the latch with the receptacle. A long latch, if installed on the wrong bay, will overreach by 2 1/2 inches. The technical manual requires latch receptacle adjustment so that the "T" on latch clears the high point of the receptacle by approximately 0.0625 in (1/16 in). This adjustment is impossible with an incorrect latch installed. The high visibility of the latch/receptacle coupled with the requirement for both operator and raft commander to check these connections makes use of a bay with

incorrect latch very unlikely.

c. Technical manual 5-5420-209-12 contains a "CAUTION" and a "WARNING" which stress the importance of the latch to receptacle connection.

d. The June 1981 edition, Issue 343, of PS Magazine stresses that cribbing should be used when setting bays on hard surfaces. This will eliminate most damage to the latch receptacles.

5. Reporting Errors and Recommending Improvements. You can help improve this bulletin. If you find any mistakes or know of a way to improve the procedures, please let us know. Mail your DA Form 2028 (Recommended Changes to Publication and Blank Forms) direct to Commander, US Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-SLDT, 4300 Goodfellow Boulevard, St. Louis, MO 63120. A reply will be furnished direct to you.

By Order of the Secretary of the Army:

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

E. C. MEYER
General, United States Army
Chief of Staff

Distribution:

To be distributed in accordance with DA Form 12-21A, Requirements for FSC Group 5420/30, Bridges.

* U.S. G.P.O.:1992-311-827:60024

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

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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PIN: 050225-000