DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

Field Procedure for Placing Drain Holes and Repair Welding Cracks in the Bow Ponton Extrusion, RIBBON BRIDGE INTERIOR BAY NSN 5420-00-071-5322

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

3 June 1983

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help to improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MPSD, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished directly to you.

Section I. Introduction

1. General. This bulletin provides instruction for inspecting, placing drain holes, and repair welding the ribbon bridge interior bay ponton deck extrusion.

2. Inspection. Inspect the interior bay bow ponton extrusion. This defect appears as a ripple or discontinuity in the top skin of the extrusion. Visually examine all of these areas for cracks. Clearly mark any crack noted in order that it can be repaired.

Section II. Maintenance Procedures

1. Tools Required. The following measuring and marking items and tools are required:

a. Three foot min straight edge or yardstick

b. Scale or tape measure

c. Pincil or Scriber

d. Center punch

e. Chalk line (optional to Item a)

f. Electric Drill Gun with 3/8 dia drill

g. File

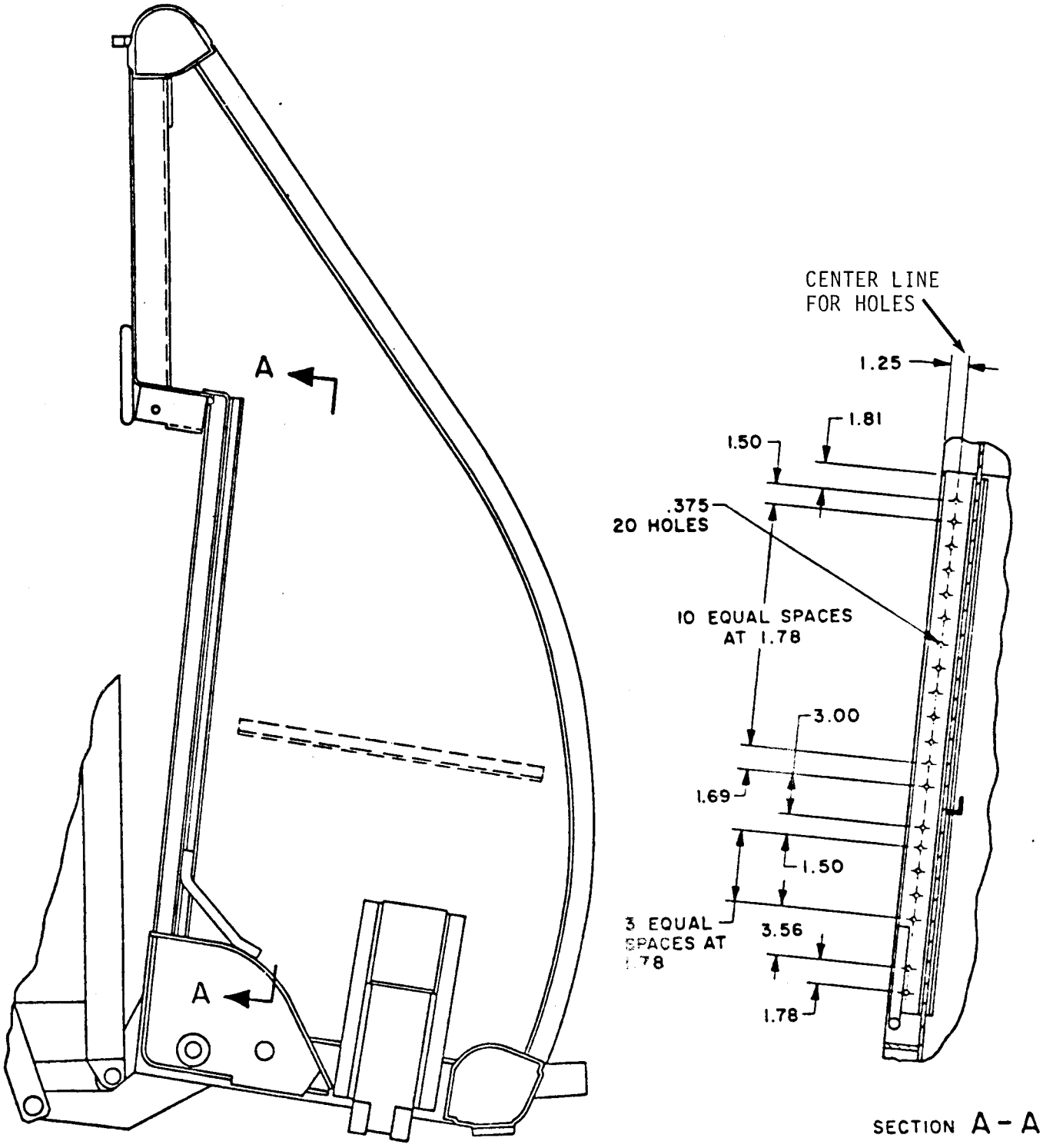

FIGURE I DRAIN HOLE LOCATION

2. Personnel. Placing the holes in the bow ponton requires two men.

3. Measuring, Marking, and Hole Drilling Procedure.

a. Using a scale or tape measure, mark out two points on underside of decking overhang on end of ponton bay to dimension shown on figure 1.

b. Draw a straight line through the points or snap a chalk line.

c. Measure off centers to dimensions shown in figure 1 and center punch each center.

d. Drill through underside skin only of decking extrusion 20 places and remove burrs with file. NOTE: The drill gun may have to be angled due to lack of space between end skin and hole centers.

e. Repeat procedures 1 through 3 on other end of bay. Holes should be placed on both ends of both bow pontons of each interior bay.

4. Repair Welding. Cracks noted and marked during the inspection in Section II above shall be welded using repair welding procedures contained in TM 5-5420-209-12, Section VI, steel and Aluminum welding, General Repair. The bow ponton deck extrusion is 6061-T6 Aluminum Alloy.

By Order of the Secretary of the Army:

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General, United States Army
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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 decigram = .035 ounce
1 dekagram = 10 grams = .35 ounce
1 hectogram = 10 dekagrams = 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

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
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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