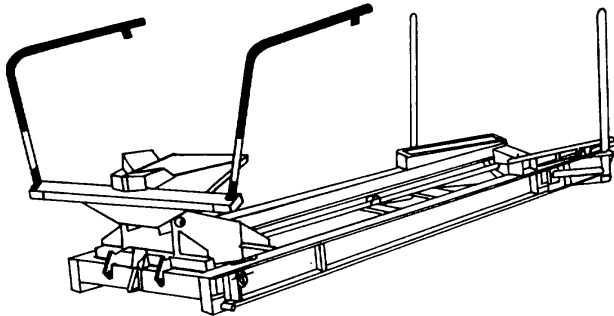


TECHNICAL MANUAL

**OPERATOR'S AND UNIT MAINTENANCE
MANUAL (INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LIST)**



**CRADLE, BRIDGE ERECTION
BOAT, TWIN JET, ALUMINUM HULL
(2090-01-106-9789)**

**OPERATING
INSTRUCTIONS
PAGE 2-1**

**OPERATOR
MAINTENANCE
CHECKS
AND SERVICES
PAGE 2-2**

**LUBRICATION
INSTRUCTIONS
PAGE 3-3**

**UNIT
PREVENTIVE
MAINTENANCE
CHECKS
AND
SERVICES
PAGE 3-4**

**UNIT
TROUBLESHOOTING
PAGE 3-7**

**UNIT
MAINTENANCE
PROCEDURES
PAGE 3-8**

Approved for public release. Distribution is unlimited.

*This manual supersedes TM 5-2090-202-12&P, 29 September 1985, including all changes.

TECHNICAL MANUAL
NO. 5-2090-202-12&P

HEADQUARTERS, DEPARTMENT OF
THE ARMY AND HEADQUARTERS U.S. MARINE CORPS
Washington, D.C., 21 May 1990

Operator's and Unit Maintenance Manual
(Including Repair Parts and Special Tools List)

CRADLE, BRIDGE ERECTION BOAT,
TWIN JET,
ALUMINUM HULL
(2090-01-106-9789)

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you.

Table of Contents

CHAPTER		PAGE
1.	INTRODUCTION	
Section	I General Information	1-1
	II Equipment Description and Principals of Operation.....	1-3
CHAPTER	2. OPERATING INSTRUCTIONS.....	2-1
Section	I Description and Use of Operator's Controls and Indicators	2-1
	II Operator Preventive Maintenance Checks and Services (PMCS)	2-2
	III Operation Under Usual Conditions	2-3
	Operation Under Unusual Conditions	2-20

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TABLE OF CONTENTS-Continued

CHAPTER	3.	UNIT MAINTENANCE INSTRUCTIONS	
Section	I	Service Upon Receipt of Materiel.....	3-1
	II	Repair Parts, Tools, and Equipment.....	3-3
	III	Lubrication Instructions.....	3-3
	IV	Unit Preventive Maintenance Checks and Services (PMCS)	3-4
	V	Unit Troubleshooting	3-7
	VI	Unit Maintenance	3-8
APPENDIX	A.	References	A-1
	B.	Maintenance Allocation Chart	B-1
	C.	Repair Parts and Special Tools List.....	C-1
	D.	Components of End Item and Basic Issue Items List.....	D-1
	E.	Additional Authorization List (AAL) Items	E-1
	F.	Expendable/Durable Supplies and Materials List.....	F-1
		Alphabetical Index.	Index-1

WARNING

Cleaning solvent, Federal Specification P-D-680, is toxic and flammable. Use solvent only in a well ventilated area. Avoid prolonged breathing of vapors. Keep solvent away from open flame. Do not use in excessive amounts.

WARNING

Do not allow cable to snag on rear of transporter. Serious injury may result if cable snags on transporter and then breaks or snaps loose.

WARNING

When applying a pretreatment primer, operator must wear eye protection.

WARNING

Cleaning solvents give off toxic fumes. Extreme caution should be used when cleaning with solvents to avoid breathing the fumes.

WARNING

Whenever boat is not on cradle, saddle freely pivots up or down on dolly and can cause injury if personnel do not exercise caution.

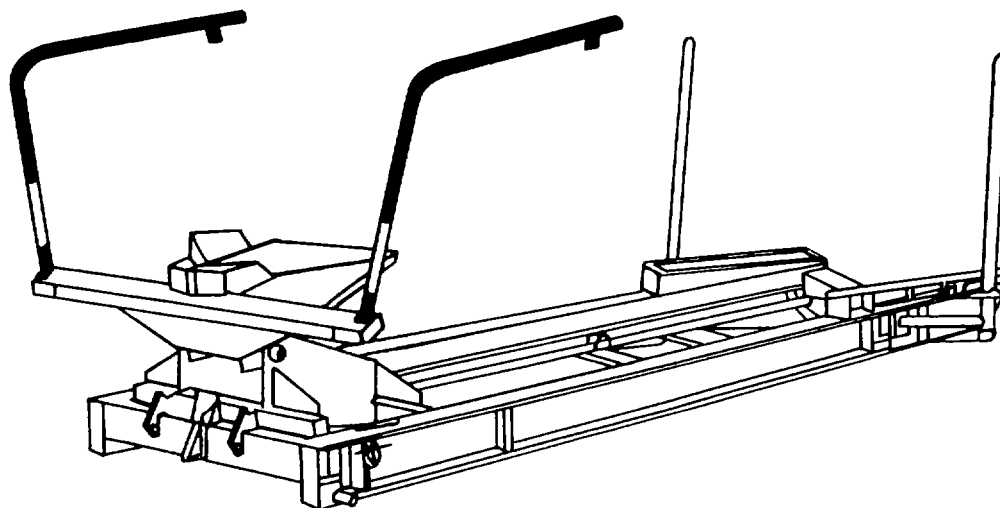
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CHAPTER 1 INTRODUCTION

INDEX

TITLE	SECTION	PAGE
General Information	I	1-1
Equipment Description and Principles of Operation.....	II	1-3

Section I. GENERAL INFORMATION



1-1. SCOPE

- a. Type of Manual..... Operators and Unit Maintenance Manual (Including Repair Parts and Special Tool List).
- b. Model Number and Equipment Name Cradle, Bridge Erection Boat, Twin Jet, Aluminum Hull NSN 2090-01-106-9789.
- c. Purpose of Equipment Used to transport, launch, and retrieve an aluminum hulled, twin jet bridge erection boat from the transporter.

1-2. MAINTENANCE FORMS, RECORDS AND REPORTS

a. Maintenance forms and procedures used by Army personnel will be those prescribed by DA Pamphlet 738-750, The Army Maintenance Management System (TAMMS).

b. Maintenance forms and records used by Marine Corps personnel are prescribed by TM 4700-15/1.

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Refer to TM 750-244-3 for methods and procedures to destroy Army materiel to prevent enemy use.

1-4. REPORTING OF EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your Bridge Erection Cradle needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance.

a. Army--EIR will be prepared using SF 368, Quality Deficiency Report. Instructions for preparing EIRs are provided in DA Pamphlet 738-750, The Army Maintenance Management System. EIRs should be mailed directly to Commander, U.S. Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

b. Marine Corps--EIRs should be submitted in accordance with MCO 1650.17 directly to: Commanding General, Marine Corps Logistics Base ATTN: Code 850, Albany, Georgia 31704-5000.

1-5. CORROSION PREVENTION AND CONTROL (CPC)

CPC of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368, Product Quality Deficiency Report (QDR). Check the box to indicate that the problem may be corrosion-related. Using key words such as "rust," "deterioration," "pitting," or "cracking," or even including color photos of the corroded area, where possible, in your QDR will help in problem diagnosis and solution.

Submit form to Commander, U.S. Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

1-6. LIST OF ABBREVIATIONS

Centimeter cm
Kilogram kg

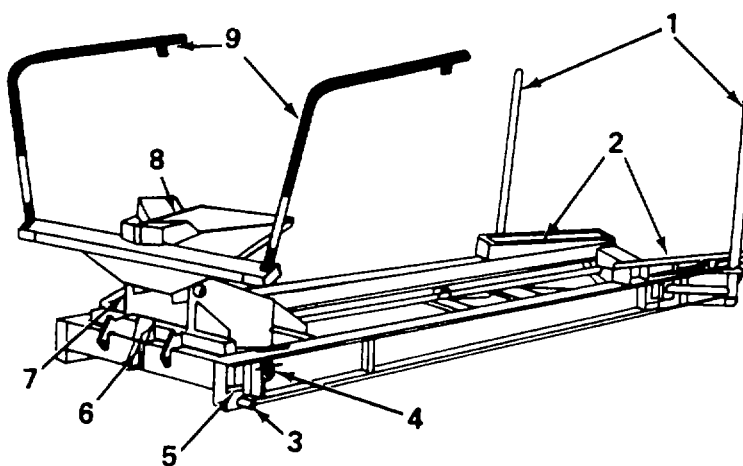
Section II. EQUIPMENT DESCRIPTION AND PRINCIPLES OF OPERATION

1-7. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES

- Constructed of aluminum
- Can be stored on hardstand or on transporter.
- Can launch and retrieve a bridge erection boat, models USCSB MK-1 and MK-2 from transporter.

1-8. LOCATION AND DESCRIPTION OF COMPONENTS AND THEIR OPERATION

- (1) REAR STANCHIONS. Used to determine water depth during boat launch and retrieval. Also correctly positions boat on cradle during retrieval.
- (2) BOAT SUPPORTS. Supports the rear of the boat on the cradle.
- (3) STOP PINS. Front stop pins prevent the cradle from rolling off the transporter during launch and retrieval. Rear stop pins secure the rear of the cradle during transport.
- (4) SHACKLES. Used when hoisting cradle with sling.
- (5) FRAME. Main structural member of the cradle.
- (6) DOLLY RETAINER. Prevents dolly from rolling.
- (7) DOLLY. Rolls forward and back to launch and retrieve the boat.
- (8) CRADLE SADDLE. Supports the front of the boat during launching and retrieval.
- (9) FRONT STANCHIONS. Used to determine water depth during boat launch and retrieval. Also used to hold cables for convenience of boat crew during launch and retrieval.



1-8. LOCATION OF COMPONENTS-Continued

(10) CABLE ASSEMBLIES. Used to secure the boat to the cradle.

NOTE

The following items are not cradle components. They are components of the ribbon bridge transporter used in cradle operation.

(11) ROLLER ASSEMBLIES. Used to adapt the ribbon bridge transporter for boat and cradle operation.

(12) TRANSPORTER. Used to transport cradle.

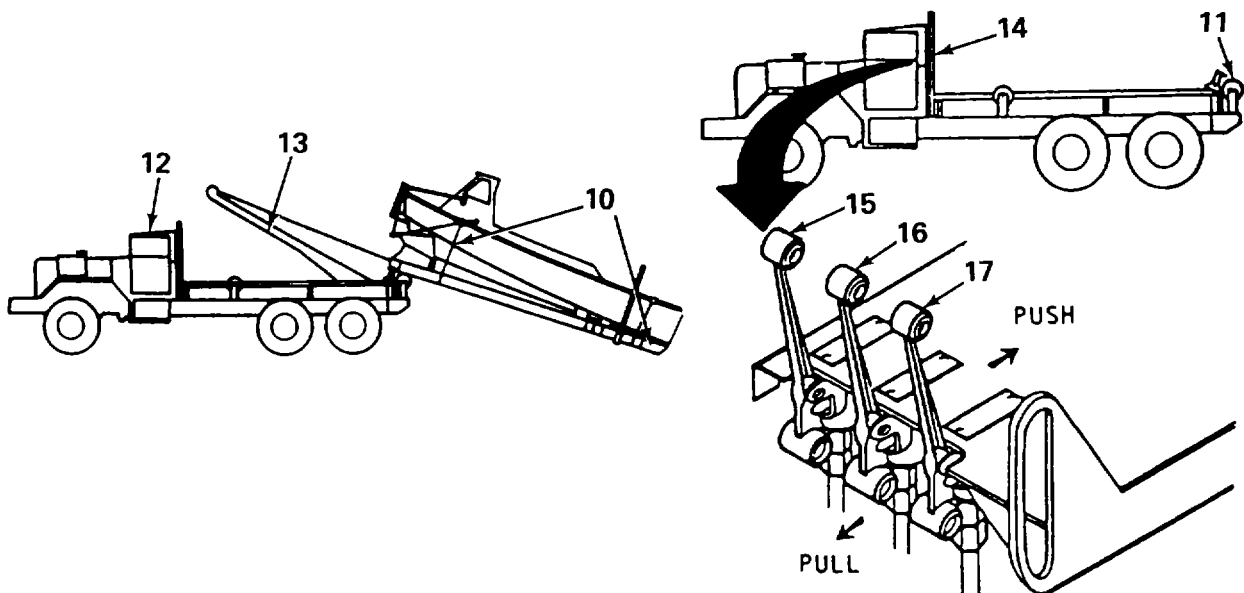
(13) TRANSPORTER BOOM. Used to elevate cradle during loading and unloading operation.

(14) TRANSPORTER BOOM CONTROLS. Used to position boom.

(15) HYDRAULIC PIN LEVER. Used to disengage and engage transporter forward locking pin, which secures cradle to transporter.

(16) WINCH CONTROL LEVER. Used to pay out and retract cable.

(17) BOOM CONTROL LEVER. Used to raise and lower boom.



1-9. EQUIPMENT DATA

Dimensions

Length	283.38 inches (7.198 meters)
Width.....	116.25 inches (2.952 meters)
Height.....	96.25 inches (2.444 meters)

Weight

Boat.....	9000 pounds (4082.4 kg)
Cradle.....	1800 pounds (816.48 kg)
Boat and Cradle (Total)	10800 pounds (4898.88 kg)