

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL

SUPERSTRUCTURE INTERIOR BAY, MOBILE
FLOATING ASSAULT BRIDGE/FERRY,
NSN 5420-00-877-8682, CONDEC CORP. MODEL
2195-1, NSN 5420-00-017-8224, CONDEC CORP. MODEL
2272, COMPONENT OF INTERIOR BAY UNIT,
NSN 5420-00-491-6339, SUPERSTRUCTURE END BAY,
MOBILE FLOATING ASSAULT BRIDGE/FERRY,
NSN 5420-00-877-8684, CONDEC CORP. MODEL 2195-2,
NSN 5420-00-017-8225, CONDEC CORP. MODEL 2271,
COMPONENT OF END BAY UNIT, NSN 5420-00-491-6320

This copy is a reprint which includes current
pages from Changes 1 through 3.
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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 31 August 1973**OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL****SUPERSTRUCTURE INTERIOR BAY, MOBILE FLOATING****ASSAULT BRIDGE/ FERRY FSN 5420-877-8682,****CONDEC CORP. MODEL 2195-1, COMPONENT OF****INTERIOR BAY UNIT FSN 5420-010-5191,****AND FSN 5420-017-8224,****CONDEC CORP. MODEL 2272 COMPONENT OF****INTERIOR BAY UNIT FSN 5420-491-6339;****SUPERSTRUCTURE END BAY, MOBILE FLOATING****ASSAULT BRIDGE/ FERRY FSN 5420-877-8684,****CONDEC CORP. MODEL 2195-2, COMPONENT OF****END BAY UNIT FSN 5420-010-5192,****AND FSN 5420-017-8225,****CONDEC CORP. MODEL 2271 COMPONENT OF****END BAY UNIT FSN 5420-491-6320.**

		Paragraph	Page
CHAPTER	1. INTRODUCTION	1-1	
Section	I. General	1-1	1-1
	II. Description and data	1-7	1-1
CHAPTER	2. OPERATING INSTRUCTIONS		
Section	I. General	2-1	2-1
	II. Operating instructions	2-2	2-1
CHAPTER	3. OPERATOR'S MAINTENANCE INSTRUCTIONS		
Section	I. Lubrication instructions	3-1	3-1
	II. Preventive maintenance checks and services (PMCS)	3-3	3-3

* This manual supersedes TM 5-5420-205-15, 19 October 1967 including all changes.

		Paragraph	Page
CHAPTER	4. ORGANIZATIONAL MAINTENANCE INSTRUCTIONS		
Section	I. Service upon receipt of materiel	4-1	4-1
	II. Movement to a new worksite.....	4-4	4-7
	III. Repair parts, special tools, and equipment.....	4-6	4-7
	IV. Lubrication instructions		
	V. Preventive maintenance checks and services (Quarterly)	4-9	4-7
	VI. Replacement of data/instruction plates	4-11	4-8
	VII. Maintenance of superstructure hydraulic components.....	4-13	4-8
	VIII. Maintenance of electrical system.....	4-23	4-20
	IX. Maintenance of superstructure bridge launching and retrieving equipment..	4-26	4-24
CHAPTER	5. DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE INSTRUCTIONS		
Section	I. Repair parts, special tools, and equipment.....	5-1	5-1
	II. Troubleshooting.....	5-4	5-1
	III. Maintenance of bridge launching and retrieving equipment.....	5-6	5-4
CHAPTER	6. REPAIR INSTRUCTIONS		
Section	I. Hydraulic system repair	6-1	6-1
	II. Electrical system cable assembly repair.....	6-5	6-6
	III. Superstructure repair	6-7	6-7
APPENDIX	A. REFERENCES		A-1
	B. MAINTENANCE ALLOCATION CHART.		B-1
Alphabetical	Index		I-1

LIST OF ILLUSTRATIONS

Number	Title	Page
1-1	Interior bay superstructure, three-quarter view, with shipping dimensions	1-2
1-2	End bay and ramp superstructure, three-quarter view, with shipping dimensions.....	1-3
3-1	Lubrication points (sheet 1 of 2)	3-2
3-1	Lubrication points (sheet 2 of 2)	3-3
3-2	Preventive maintenance services, model nos. 2195-1 and 2195-2 (sheet 1 of 3)	3-4
3-2	Preventive maintenance services, model nos. 2195-1 and 2195-2 (sheet 2 of 3)	3-5
3-2	Preventive maintenance services, model nos. 2195-1 and 2195-2 (sheet 3 of 3)	3-6
3-3	Preventive maintenance services, model nos. 2271 and 2272 (sheet 1 of 3).....	3-7
3-3	Preventive maintenance services, model nos. 2271 and 2272 (sheet 2 of 3).....	3-8
3-3	Preventive maintenance services, model nos. 2271 and 2272 (sheet 3 of 3).....	3-9
4-1	Link assembly clamp in place	4-1
4-2	Superstructure sling assembly	4-2
4-3	End bay superstructure, removal and installation (sheet 1 of 3).....	4-3
4-3	End bay superstructure, removal and installation (sheet 2 of 3).....	4-4
4-3	End bay superstructure, removal and installation (sheet 3 of 3).....	4-5
4-4	Superstructure sling assembly hook in place	4-5
4-5	Interior bay superstructure, removal and installation	4-6
4-6	Typical line-hose-cylinder application	4-9
4-7	Check valve, removal and installation	4-10
4-8	Pilot operated check valve, end bay model no. 2271, removal and installation	4-11
4-9	Pilot operated check valve, interior bay model no. 2272, removal and installation	4-12
4-10	Counterbalance valve, removal and installation	4-13
4-11	Curb end bay, pilot operated check valve, removal and installation	4-14
4-12	Curbing cylinder, removal and installation	4-15
4-13	Rotation cylinder, removal and installation (sheet 1 of 2).....	4-16
4-13	Rotation cylinder, removal and installation (sheet 2 of 2).....	4-17
4-14	Pinning cylinder, removal and installation.....	4-18
4-15	End bay unfolding cylinder, removal and installation	4-19
4-16	Typical hose clamp, bracket, and spring removal.....	4-20
4-17	Electrical receptacle and bracket, removal and installation	4-21
4-18	Junction box removal and installation (superstructure model no. 2195-1 (sheet 1 of 2)	4-22
4-18	Junction box removal and installation (superstructure model no. 2272) (sheet 2 of 2)	4-23
4-19	Quick disconnect couplings, removal and installation (sheet 1 of 2)	4-25
4-19	Quick disconnect couplings, removal and installation (sheet 2 of 2)	4-26
4-20	Decking, removal and installation	4-27
4-21	Curb arm and rod, removal and installation.....	4-28
4-22	Curbing and torsion shaft, and ramp bracket, removal and installation (sheet 1 of 3)	4-29
4-22	Curbing and torsion shaft, and ramp bracket, removal and installation (sheet 2 of 3)	4-30
4-22	Curbing and torsion shaft, and ramp bracket, removal and installation (sheet 3 of 3)	4-31
4-23	Typical tapered female locator pin assembly, removal and installation	4-32
4-24	Yoke, removal and installation	4-33
4-25	Holddown bolt, removal and installation.....	4-34
4-26	Holddown bolt assembly, disassembly and reassembly	4-35
6-1	Curbing cylinder, disassembly and reassembly	6-2
6-2	Rotation cylinder, disassembly and reassembly	6-3
6-3	Pinning cylinder, disassembly and reassembly	6-4
6-4	Unfolding mechanism hydraulic cylinder, disassembly and reassembly	6-5
FO-1	Interior bay hydraulic diagram, model no. 2195-1 (sheet 1 of 2).....	Figure FO-1 (1)
FO-1	Interior bay hydraulic diagram, model no. 2272 (sheet 2 of 2)	Figure FO-1 (2)
FO-2	End bay hydraulic diagram, model no. 2195-2 (sheet 1 of 2)	Figure FO-2 (1)
FO-2	End bay hydraulic diagram, model no. 2271 (sheet 2 of 2)	Figure FO-2 (2)
FO-3	Electro-hydraulic functional schematic, interior bay superstructure, model no. 2195-1, girder pinning	Figure FO-3
FO-4	Electro-hydraulic functional schematic, superstructure rotation, model nos. 2195-1 and 2195-2	Figure FO-4
FO-5	Electro-hydraulic functional schematic, ramp fold and unfold, superstructure model no. 2195-2	Figure FO-5
FO-6	Electro-hydraulic functional schematic, end bay superstructure model no. 2195-2, girder pinning.....	Figure FO-6
FO-7	Electro-hydraulic functional schematic, superstructure model nos. 2195-1 and 2195-2, raise and lower	Figure FO-7
FO-8	Electro-hydraulic functional schematic, interior bay model no. 2195-1 superstructure, curbing up and down	Figure FO-8
FO-9	Electro-hydraulic functional schematic, end bay superstructure model no. 2195-2, curbing up and down	Figure FO-9
FO-10	Hydraulic functional schematic, interior girder pinning, superstructure model no. 2272.....	Figure FO-10
FO-11	Hydraulic functional schematic, superstructure rotation, model nos. 2271 and 2272.....	Figure FO-11
FO-12	Hydraulic functional schematic, ramp fold and unfold, superstructure model no. 2271	Figure FO-12
FO-13	Hydraulic functional schematic, end bay girder pinning, superstructure model no. 2271.....	Figure FO-13
FO-14	Hydraulic functional schematic, raise and lower, superstructure model nos. 2271 and 2272	Figure FO-14
FO-15	Hydraulic functional schematic, interior bay curbing up and down, superstructure model no. 2272	Figure FO-15
FO-16	Hydraulic functional schematic, end bay curbing up and down, superstructure model no. 2271	Figure FO-16

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual is for your use in operating and maintaining the interior and end bay superstructures of the mobile floating assault bridge/ferry, models 2195-1, 2195-2, 2272, and 2271

1-2. Maintenance Forms and Records

Maintenance forms and records that you are required to use are explained in TM 38-750.

1-3. Reporting of Errors

You can improve this manual by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications), or by a letter, and mail directly to:

Commander, U. S. Army Troop Support Command, ATTN: AMSTS-MPP, 4300 Goodfellow Boulevard, St. Louis, Missouri, 63120. A reply will be furnished directly to you.

1-4. Equipment Serviceability Criteria (ESC)

This equipment is not covered by an ESC.

1-5. Destruction of Army Materiel to Prevent Enemy Use

Procedures to be used for destruction of the equipment to prevent enemy use are in TM 5-5420-204-12, TM 5-5420-210-12, and TM 750-244-3.

1-6. Administrative Storage

For administrative storage instructions, refer to TM 740-90-1.

Section II. DESCRIPTION AND DATA

1-7. Description

a. Interior Bay Superstructure. The interior bay superstructure (fig. 1-1) is a 4 stringer unit with a 26 foot effective span. It is a weldment of low-alloy structural steel. At each end it incorporates 2 pinned connections of a tongue and slot design which are joined to provide a continuous beam between adjoining units. The connection design facilitates speed of assembly and the connection is completed by a hydraulically driven pin which is actuated by a crewman in the cab. The roadway surface is of extruded aluminum alloy waffle pattern planking. This planking is applied in

approximately 12 inch wide sections which are easily removable and replaceable in the event of damage. The superstructure as carried on the transporter, is approximately 12 feet in width. To provide curb and additional width to form a 13 foot, 6 inch roadway, a 10 inch wide fold-down curb section is provided on each side of superstructure, model no. 2195-1. On superstructure model 2272 there are two fold-down curb sections on each side. This section is hydraulically rotated upward into position and is automatically secured in place after erection of the bridge.

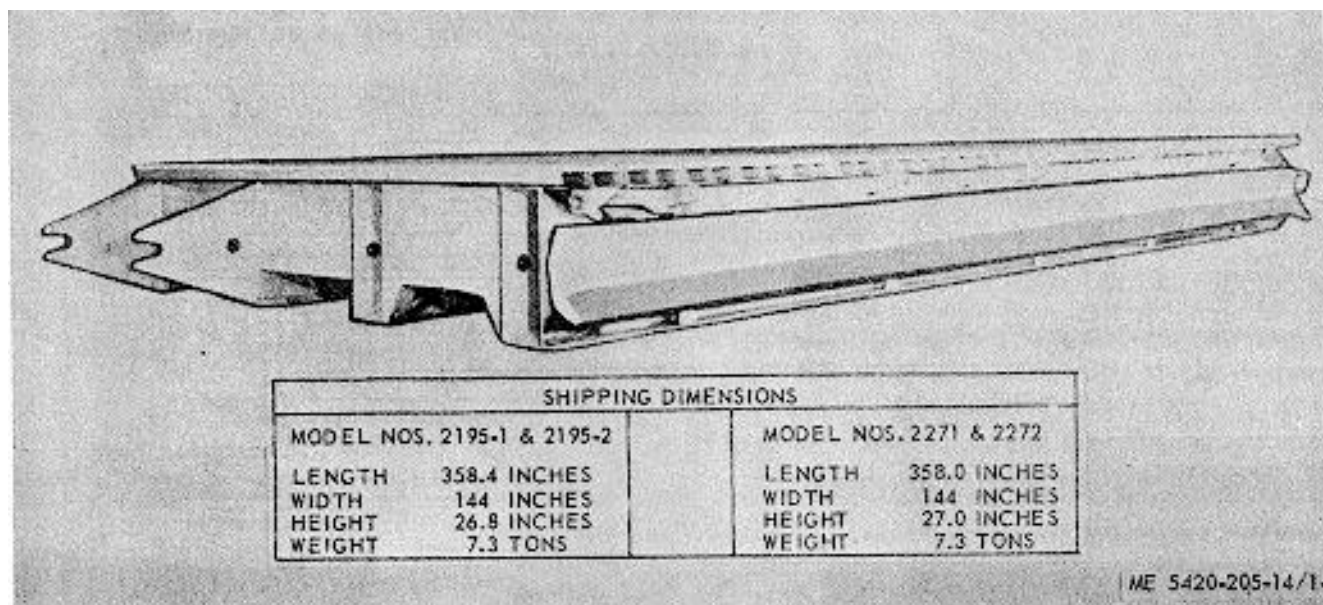


Figure 1-1. Interior bay superstructure, three-quarter view with shipping dimensions.

b. End Bay Superstructure. The end bay superstructure (fig. 1-2) is comprised of two basic elements: (1) a deck section similar to the interior bay superstructure but approximately 14 feet, 9 inches long; and (2) a tapered ramp approximately 22 feet, 9 inches long which can be rotated by hydraulic cylinders controlled from the vehicle cab to form the approach ramp for bridges and ferries. The sections are fabricated of aluminum alloy and steel. The hinges joining the 2 ramp sections are of high strength steel. The end and interior bay superstructures are adaptable to and transported by the same type transporter. The direction of rotation of the ramp for assembly into bridge or ferry position is controlled by a simple pin attachment between the main girders, so that right

and left approach ramps can easily be arranged and vehicle headings kept in the same direction. The hinged portion of the ramp superstructure can be rotated only after it has been connected to another vehicle. After that connection has been made, it is rotated upward and outward to the desired position. The ramp can be adjusted in grade positions ranging from any angle upslope to 15 percent down slope. In the desired position the ramp unfolding cylinders are hydraulically locked to secure the hinged joint from turning when the load moves onto the bridge. The maintenance paragraphs of this manual contain detailed descriptions of the interior bay superstructure components.

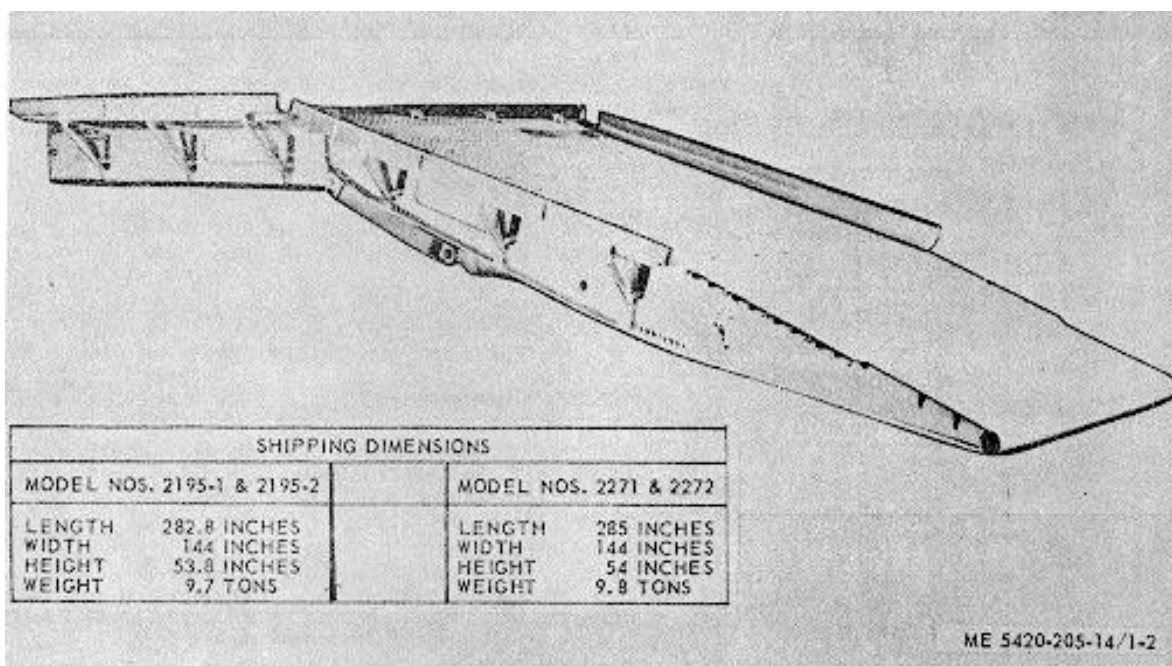


Figure 1-2. End bay and ramp superstructure. three-quarter view with shipping dimensions.

1-8. Identification and Tabulated Data

a. *Identification.* The interior bay and end bay superstructures each contain two major identification plates. This paragraph gives the location and description of the plates. Information contained on the plates will be found in b below.

(1) *Interior bay superstructure identification plate.* This plate is located on the left corner of the interior bay superstructure. It specifies the nomenclature, serial number, manufacturer, and contract number.

(2) *Interior bay superstructure transportation data plate.* This plate is located at the stern of the interior bay superstructure. It specifies the nomenclature, center of gravity, overall length, overall width, overall height, shipping cubage, shipping weight and shipping tonnage.

(3) *End bay superstructure identification plate.* This plate is located on the left corner at the stern of the end bay superstructure. It specifies the nomenclature, serial number, manufacturer, and contract number.

(4) *End bay superstructure transportation data plate.* This plate is located on the left at the stern of the end bay superstructure. It specifies the nomenclature, center of gravity, overall length, overall width, overall height, shipping cubage, shipping weight, and shipping tonnage.

b. Tabulated Data.

(1) Interior bay superstructure identification plate.

Nomenclature Superstructure Interior Bay for
Mobile Floating Assault
Bridge Ferry Unit.
Manufactured by Consolidated Diesel Electric
Company

Contract No:

Model 2195-1 DA-11-184-AMC-720(T)
Model 2272 DAAK01-71-C-7052

(2) Interior bay superstructure transportation data plate, model nos. 2195-1 and 2272.

Nomenclature Superstructure Interior Bay for
Mobile Floating Assault
Bridge Ferry Unit.

Center of gravity:

Model 2195-1 178.8 inches from end of
superstructure and 18 inches
from bottom.
Model 2272 179.0 inches from end of
superstructure and 14 inches
from bottom.

Overall length:

Model 2195-1 358.4 inches
Model 2272 358.0 inches

Overall height:

Model 2195-1 26.8 inches
Model 2272 27.0 inches

Overall width:

Both models 144.0 inches