

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

Air Transportability Procedures

M38A1C AND M151A1C 1/4-TON TRUCKS, WITH MOUNTED 106-MM RECOIL-
LESS RIFLES, IN CH-47 HELICOPTER

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1. Purpose and Scope

a. This manual presents transportability procedures for movement of M38A1C and M151A1C 1/4-ton trucks, with mounted 106-mm recoilless rifles, in the CH-47 helicopter and prescribes the materials and manpower needed to prepare, load, and tie down the trucks and to off-load them from the helicopter.

b. Users of this manual are encouraged to submit recommended changes or comments for its improvement. Comments should be keyed to the specific page, paragraph, and line of the text in which a change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded direct to the Commander, U.S. Army Transportation Engineering Agency, Military Traffic Management and Terminal Service, ATTN: MTT-TG, Fort Eustis, Va. 23604.

2. Applicability

The instructions in this manual apply when the trucks are transported in the CH-47 helicopter. With the consent of the helicopter commander, a transported unit can add cargo within allowable load limits and restrictions prescribed by pertinent safety regulations (app). The load described in this manual is not necessarily a maximum load.

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Warning: The M38A1C and M151A1C 1/4ton trucks, with mounted 106-mm recoilless rifles, in the CH-47 helicopter shall be loaded and tied down in accordance with the instructions in this manual except when, for operational reasons or to accommodate additional cargo, the helicopter commander may designate a location other than that shown in the loading diagram. If the trucks are relocated, the helicopter commander must insure that

a. The number and load capacity of the tiedown devices are as prescribed in this manual.

b. The tiedown devices restraining the trucks are secured to tiedown fittings of at least the same strength and in the same location relative to the trucks as those fittings used in the tiedown diagram.

c. The trucks face as shown in the tiedown diagram.

3. Responsibilities

a. *Transported Unit Commander.*

- (1) Prepare equipment for air transport with supervision and assistance as required from appropriate field support units.
- (2) Load, tie down, and off-load equipment transported aboard the helicopter, subject to approval by the helicopter commander or his authorized repre

sentative. Such approval is to insure that loading, tiedown, and off-loading are accomplished as prescribed by this manual.

- (3) Effect advance coordination with the transporting unit to include a request for the tiedown devices required.
- (4) Provide manpower and the necessary materials needed to prepare, load, and off-load the equipment.
- (5) Provide guidance to the helicopter commander relative to safety and to any technical peculiarities of the trucks and the mounted 106-mm recoilless rifles which may affect their safe and reliable air transport.

b. Transporting Unit Commander.

- (1) Supply a sufficient quantity of the type of tiedown devices requested.
- (2) Operate helicopter-associated equipment, and monitor loading, tiedown, and offloading procedures to insure conformance with this manual.
- (3) Inspect the helicopter for serviceability appropriate to the mission, and comply with pertinent aviation directives and maintenance manuals.

4. Load Description

The approximate dimensions and weights of the trucks with mounted 106-mm recoilless rifles are as follows:

Item	Dimensions			Weight (lb)
	Length (in)	Width (in)	Height (in)	
Truck, 1/4-ton, M38A1C, with 106mm recoilless rifle	152	68	71	3, 220
Truck, 1/4-ton, M151A1C, with 106-mm recoilless rifle	148	72	64	3, 235

5. Preparation and Loading

a. Materials. Four small clevis assemblies (FSN 1670-360-0304), for use with M151A1C truck only.

b. Procedures.

- (1) Insure that the following is accomplished for each truck:
 - (a) Remove truck top and store in truck; strap down the top supports.
 - (b) Lower the windshield and side rearview mirror.
 - (c) Bend antenna base section forward, and secure the antenna.
 - (d) Inspect rifle's secureness to mount.
 - (e) Insure that trucks' fuel tanks are filled to only three-fourths of their capacity.
- (2) Attach a clevis to each of the four axle hubs of the M151A1C truck.
- (3) Align helicopter auxiliary ramps with wheels of trucks.
- (4) Position guides in helicopter and at left front of trucks to observe clearances and to signal drivers as necessary.
- (5) Back M38A1C truck into helicopter to tiedown position; place transmission in gear and set brakes.
- (6) Repeat (5) above for M151A1C truck.

Note. Exercise extreme caution to insure that all securement chains and straps used around axles are located so as not to damage hydraulic brake lines.
- (7) Tie down the trucks in accordance with figure 1 and table 1. Four CGU-i/B and four MB-1 tiedown devices are required to tie down each truck.
- (8) Four men can prepare, load, and tie down the trucks in approximately 20 minutes.

Note. It is emphasized that times given for the operations described in this manual are for guidance purposes only and may vary, dependent upon existing conditions.

6. Off-Loading

The off-loading procedures are essentially the reverse of those used in loading. Position guides and drive trucks from the helicopter. Four men can off-load the trucks from the helicopter in approximately 10 minutes.

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