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Transportation and Travel

Blocking and Bracing for Motor Transport

***This regulation supersedes USAREUR Regulation 55-48, 7 April 1994.**

For the Commander:

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Summary. This regulation provides standards for proper blocking and bracing on military transport vehicles.

Applicability. This regulation applies to users and operators of U.S. Army transportation assets. It primarily addresses the central trailer fleet controlled and operated by the 21st Theater Support Command.

Supplementation. Organizations will not supplement this regulation without USAREUR G4 (AEAGD-P) approval.

Forms. AE and higher level forms are available through the Army in Europe Publishing System (AEPUBS).

Records Management. Records created as a result of processes prescribed by this regulation must be identified, maintained, and disposed of according to AR 25-400-2. Record titles and descriptions are available on the Army Records Information Management System website at <https://www.arims.army.mil>.

Suggested Improvements. The proponent of this regulation is the USAREUR G4 (AEAGD-P, DSN 370-8914). Users may suggest improvements to this regulation by sending DA Form 2028 to the USAREUR G4 (AEAGD-P), Unit 29351, APO AE 09014-9351.

Distribution. B (AEPUBS).

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SECTION I INTRODUCTION

1. PURPOSE

This regulation prescribes policy on motor transport blocking and bracing, cargo loading, and weight limits.

2. REFERENCES

Appendix A lists references.

3. EXPLANATION OF ABBREVIATIONS

21st TSC	21st Theater Support Command
AMC	United States Army Materiel Command
CONEX	container express
HEMTT	heavy expanded mobility tactical truck
HET	heavy equipment transporter
HMMWV	high-mobility multiwheeled vehicle
MCT	movement control team
MILVAN	military van (military-owned demountable container)
MMOB	military mode operating battalion
RTFL	rough terrain forklift
SEAVAN	commercial shipping container
TB	technical bulletin
U.S.	United States

4. POLICY

Loads transported by 21st Theater Support Command (21st TSC) units will not be pulled unless properly blocked and braced.

5. RESPONSIBILITIES

a. The U.S. Government or agents of the U.S. Government found willfully negligent in the discharge of their duties will be held liable for damage caused by improperly blocked and braced cargo.

b. Shippers will—

(1) Provide required blocking and bracing materials.

(2) Block and brace cargo loaded on theater transportation assets.

(3) Contact the servicing movement control team (MCT) and the military mode operating battalion (MМОB) to help solve blocking and bracing problems.

c. The consignee will remove blocking and bracing materials and return trailers to their organization configuration.

d. The military mode operator will—

(1) Inspect cargo for proper blocking and bracing.

(2) Work with the shipper and the MCT to solve blocking and bracing problems.

6. EXCEPTIONS

This regulation prescribes minimum requirements to ensure safe movement of cargo over highways. When this regulation does not cover a specific requirement, shippers will use common sense and the blocking and bracing principles in section II.

SECTION II PRINCIPLES OF BLOCKING AND BRACING

7. GENERAL

Proper blocking and bracing techniques must be used before transporting cargo. Failure to use proper techniques may result in death, injury, and enormous property loss. Cargo to be loaded on semitrailer and other cargo vehicles should be placed on the center of balance of the vehicle and secured with blocking, bracing, and lashing (tiedowns), where required. Figures 1 and 2 show the center of balance for trailers and trucks, respectively. A partial row of cargo should be centered on the bed of the trailer or vehicle and blocked on the front, rear, and sides. Loads should be blocked, braced, and lashed to prevent upward, forward, rearward, and sideward movement. Empty space between boxes, crates, and barrels should be minimized and filled in with cribbing. Loads should be blocked to prevent shifting en route.

a. Blocking and Bracing. Crib-type blocking is preferred for general cargo. The advantage of this type of material over others is that it does not need to be nailed to the floor or sides if placed tightly against the cargo. This reduces damage to the trailer floor and sideboards and saves time and dunnage material. When the load is only one tier high, proper blocking and bracing normally will be good enough without lashing.

b. Lashing. Lashing will be done with four strands of #9 wire twisted for tightness or tightened wire rope fastened with four U-shaped clamps at each end.

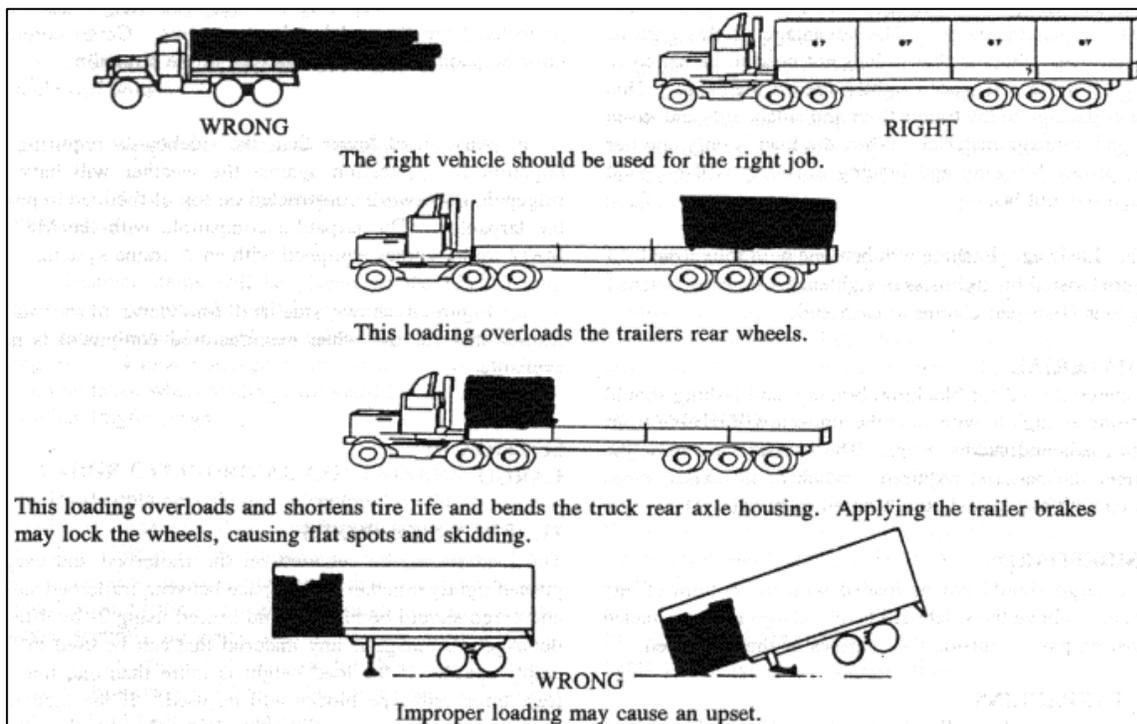


Figure 1. Center of Balance for Trailers

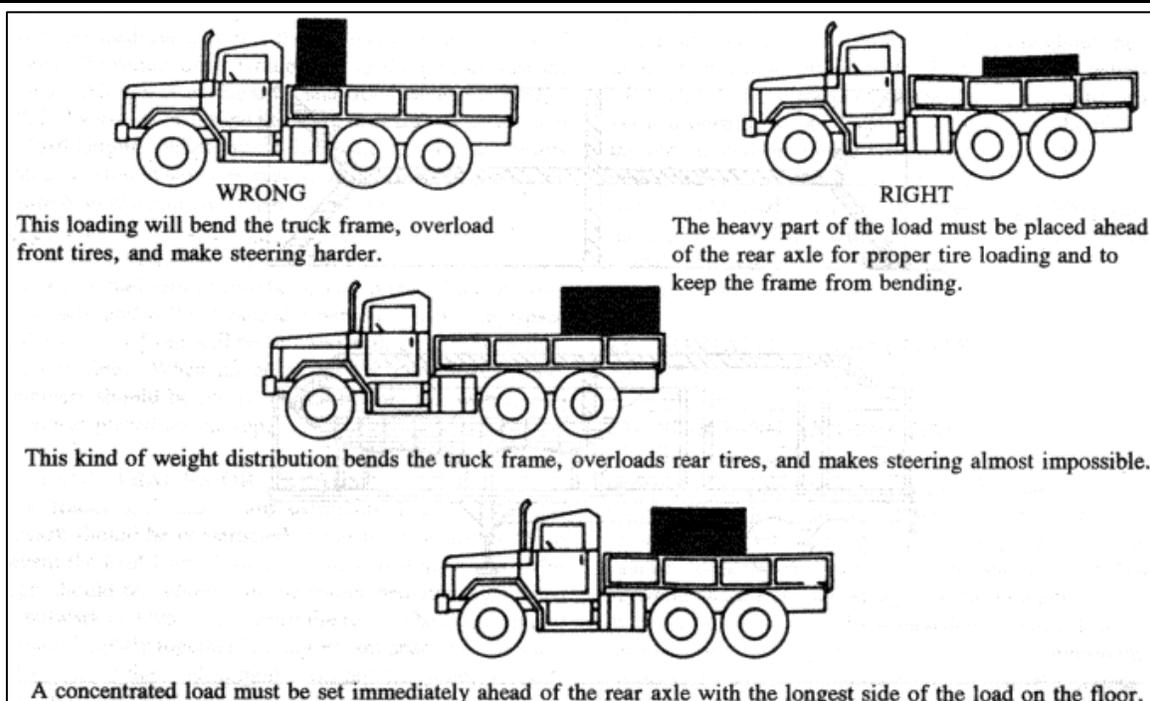


Figure 2. Center of Balance for Trucks (2½ Ton Through 5 Ton)

8. MATERIAL

The material used for blocking, bracing, and lashing should be strong enough to withstand the abuse it will receive from rough roads and sudden stops. The heavier the cargo, the stronger the material required. When doubt exists, more than enough material should be used to be safe.

9. SIDEBOARDS

Loose cargo should not be loaded with the bottom of any item on or above the sideboard level. Cargo must be loaded so that no part is outside the confines of the cargo bed.

10. TARPAULINS

A sagging tarpaulin will collect water, which may result in cargo damage.

a. Any load exceeding the sideboard height must be protected from the weather by tarpaulins. Cargo corners must be padded to prevent damage to the tarpaulin.

b. Any load lower than the sideboards requiring a tarpaulin for protection against the weather will have a ridgeline framework constructed on top of the load to peak the tarpaulin. The tarpaulin compatible with the M871/M872 trailer comes equipped with an A-frame system.

c. Figure 3 shows side and top views of tarpaulin frameworks for use when manufactured equipment is not available.

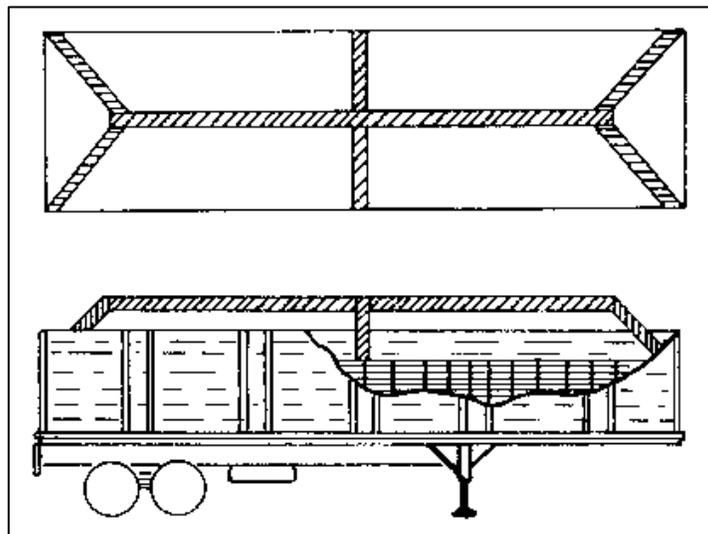


Figure 3. A-Frame Tarpaulin (Top and Side Views)

SECTION III CARGO

11. EVEN-SIZE BOXES

The load should be centered on the trailer bed and cargo pushed tightly together. Any space between trailer bed sides and cargo should be blocked and braced using 2- by 4-inch dunnage. Dunnage is any material that can be used to fill empty space. If the load height is more than one tier, at least three crib-type blocks must be used. If the load fits evenly (fills all space in the cargo bed), then blocking and bracing is not necessary, nor is lashing normally required.

12. ODD-SIZE BOXES

a. A load of odd-size boxes should be centered on the vehicle bed with—

- (1) Weight distributed as equally as possible.
- (2) Heavy pieces of cargo forming the first tier (bottom layer).

b. Heavier items will be placed on the bottom with remaining cargo placed to fill in open spaces. For spaces where cargo cannot be used as a filler, blocking and bracing using 2- by 4-inch dunnage is required. Particular care should be taken when loading cardboard boxes, small cans, and other fragile cargo.

13. LARGE CYLINDRICAL CONTAINERS

Cylindrical containers should be centered on the trailer bed. Cylindrical containers should be lashed together using #9 wire rope. When lifting rings or lugs are available, they must be lashed to the containers in such a way as to balance the load during lifting. Large cylindrical containers must be blocked securely on every side to prevent shifting during transport. The preferred material for this is 4- by 4-inch dunnage. Figures 4 and 5 show the proper way to load and secure large cylindrical containers.

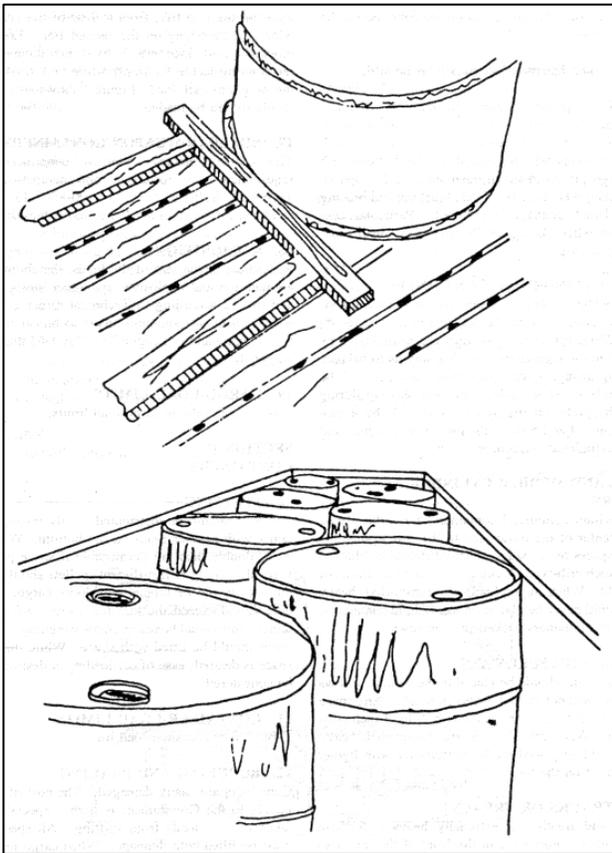


Figure 4. Loading and Securing Large Cylindrical Containers on M871 and M872 Trailers

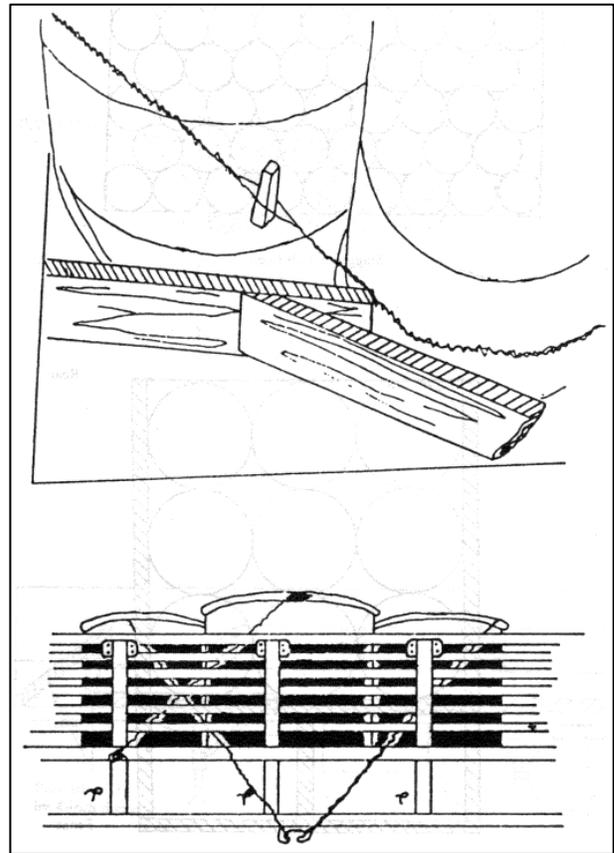


Figure 5. Large Cylindrical Containers on 2½-Ton and 5-Ton Truck Cargo Vehicles (Top and Side Views)

14. SMALL AND MEDIUM CYLINDRICAL CONTAINERS

Small and medium cylindrical containers should be placed towards the center of the trailer and to the rear against the tailgate. All spaces on the sides and front should be blocked with 2- by 4-inch crib-type blocking to at least two-thirds of the load height. When mixed loads are transported, heavy containers should never be placed on top of light containers. Figure 6 shows containers packed in even rows.

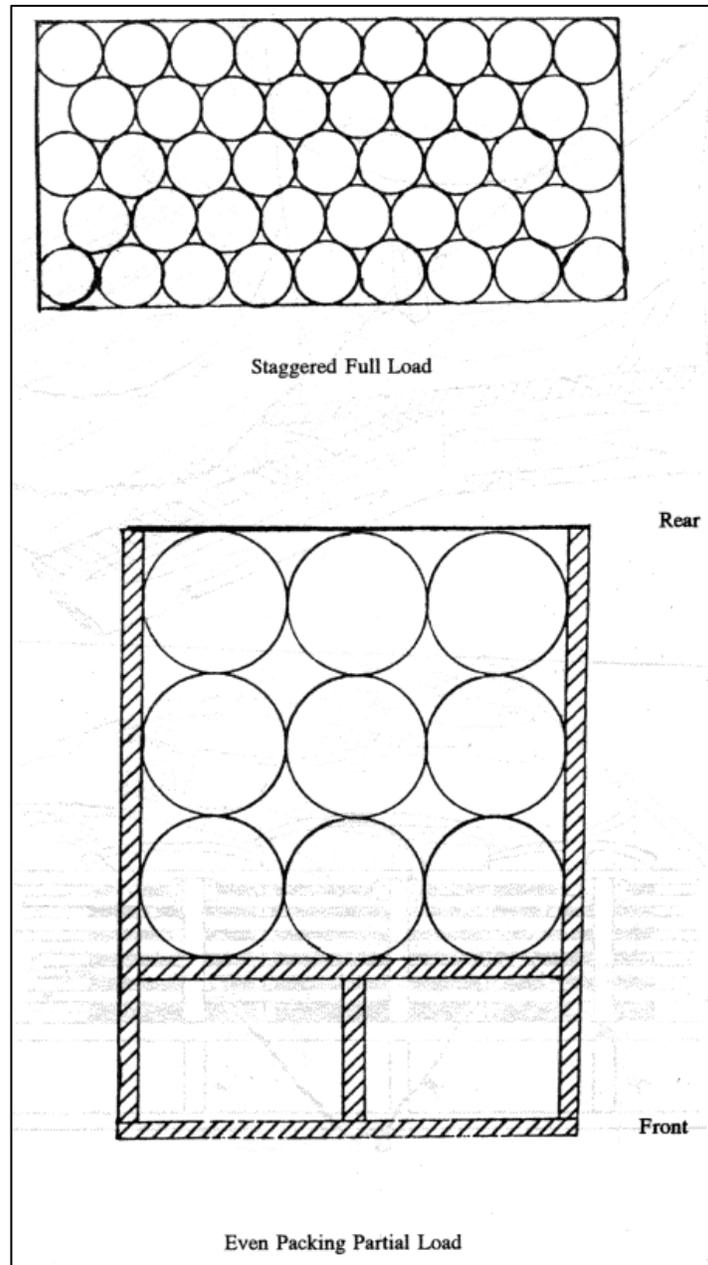


Figure 6. Medium Cylindrical Containers Packed in Even Rows (Top View)

15. FIVE-GALLON FUEL CANS

Five-gallon fuel cans should be placed in the vehicle in rows of 13 each, and must not exceed 3 tiers in height. Any space on the sides or front must be blocked with 2- by 4-inch crib-type blocking. When mixed loads are transported, heavy containers should be placed on the bottom tier with lighter containers placed on the top.

16. TANK TRACKS OR TREADS

Tank tracks and treads are extremely heavy. A false bulwark should be constructed in the front of the trailer to prevent the load from shifting if a sudden stop occurs. The cargo should be centered in the trailer bed starting against the bulwark and working toward the rear. The cargo should be placed tightly together leaving vacant space on the sides and front. If the load is more than one tier high, 4- by 4-inch crib-type blocking must be used to fill vacant spaces. Any partial row must be placed on the trailer or vehicle center of balance and blocked on all sides where vacant space exists. Crated tank tracks and treads should be distributed evenly in complete rows, four wide and four long, on the first tier, front to rear of the vehicle, and two wide and four long on the second tier. Loads should be blocked on all sides with 2- by 4-inch dunnage. Normally the limiting factor for transporting tank tracks or treads is the weight of each load. Figure 7 shows how tank track and treads should be loaded.

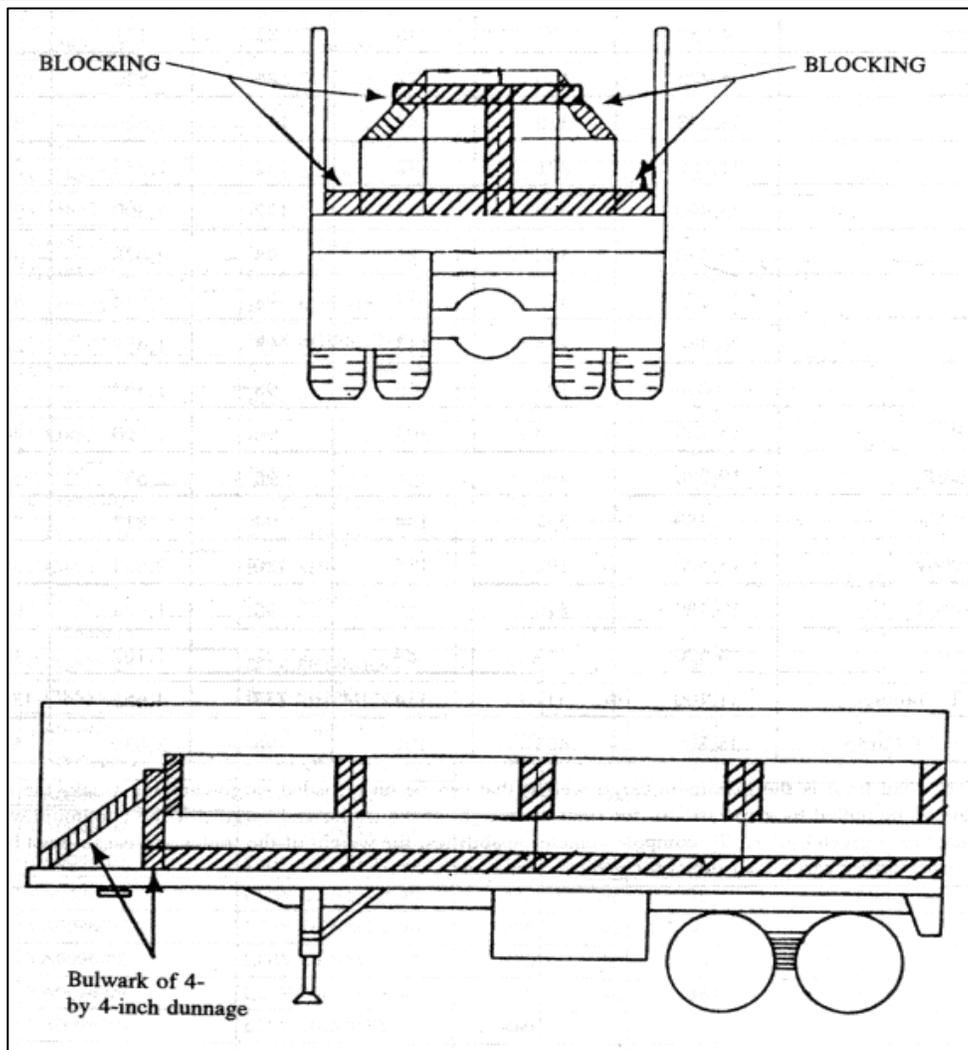


Figure 7. Tank Tracks or Treads on M871 and M872 Trailers (End and Side Views)

17. AMMUNITION

Regardless of the size of loads, the shipper must ensure ammunition and explosives are either strapped or blocked and braced according to the United States Army Materiel Command (AMC) Drawing 19-48 series. The AMC Drawing 19-48 series provides detailed storage and loading procedures for every ammunition-load configuration. Requirements for ammunition are technical, and the controls for blocking and bracing in the AMC Drawing 19-48 series are the only acceptable ones. AMC Drawing 19-48-75-5 is an index of the complete series. Local ammunition supply points and storage sites have these publications. AE Regulation 55-4 provides specific requirements for moving ammunition and explosives in Europe.

18. CARGO-LOAD LIMITS

Table 1 lists vehicle cargo-load limits.

Table 1 Cargo-Load Limits						
Type	Weight (Pounds)	Length (Inches)	Height (Inches)	Width (Inches)	Cargo (Cubic Feet)	Load (Pounds)
Light Van	5,275	140	72	86	520	11,000
Panel Truck	4,250	97	46	87	121	6,250
M129A3 S-Van	15,480	336	144	94	813	24,000
M172 Lowboy	15,500	192	115	120	2,684	30,000
M747 HET Trailer	31,100	317	114	137	4,655	137,000
M870 Lowbed	19,180	510	70	96	1,984	99,180
M871 S&P	15,760	358	103	96	1,890	40,750
M872A3 S&P	19,280	490	106	96	2,532	87,280
M878	16,030	193	119	98	1,303	16,030
M911	38,233	370	142	115	2,629	38,233
M915	21,600	271	142	132	1,732	21,600
M920	25,490	320	142	132	2,300	25,490
M923	22,020	320	87	98	2,078	32,020
M925	22,070	327	87	98	1,614	32,070
M931	20,480	264	113	98	1,452	20,480
M977 HEMTT Cargo	38,800	401	101	96	3,639	58,800
SC209 Reefer	8,600	244	84	72	1,102	15,000

NOTE: The load limit is the maximum cargo weight that can be on a loaded cargo-carrying truck, the maximum weight that can be pulled by a specific tractor (including the weight of the trailer and cargo), or the maximum weight that can be loaded on a given trailer. To compute vehicle capabilities, the weight of the trailer and cargo must be known. TB 55-46-1 prescribes cargo-load limits for vehicles not listed above.

**SECTION IV
CONTAINERS**

19. STUFFING

The load should be distributed evenly throughout the container with heavier items on the bottom. When pallets are used, double tiers are permissible if space permits. If the vertical opening is insufficient, pallets should be placed on the bottom and be topped with loose cargo. No palletized unit should exceed the maximum gross weight of the container. Individual boxes or crates weighing 2,000 pounds or more should be fitted with skids. While maximum use of space is desired, ease of off-loading at the destination must also be considered.

20. CONTAINER-LOAD LIMITS

Table 2 lists container-load limits.

Table 2 Container-Load Limits							
Item	Line Item Number	Description (in feet)	Length	Width	Height	Empty Weight	Loaded Weight
			(in inches)			(in pounds)	
MILVAN	C138525/15	BOX SHIPMENT 20	242	96	149	4,710	8,750
MILVAN	C138525/16	BOX SHIPMENT 20	242	96	149	5,740	13,750
MILVAN	C138525/17	BOX SHIPMENT 20	242	96	149	8,750	18,750
MILVAN	C138525/18	BOX SHIPMENT 20	242	96	149	9,780	13,750
MILVAN	C138525/19	BOX SHIPMENT 20	242	96	149	13,750	28,750
MILVAN	C138525/20	BOX SHIPMENT 20	242	96	149	13,750	33,750
MILVAN	C138525/21	BOX SHIPMENT 20	242	96	149	16,900	38,750
MILVAN	C138525/22	BOX SHIPMENT 20	242	96	149	16,900	43,750
MILVAN	C138525/23	BOX SHIPMENT 20	242	96	149	16,900	48,750
MILVAN	C138525/24	BOX/CHASSIS AND SINGLE AXLE (MILVAN ON CHASSIS)					
MILVAN	C138525/25	BOX SHIPMENT 20	242	96	149	1,275	5,740
MILVAN	C138525/26	BOX SHIPMENT 20	242	96	149	4,710	10,740
MILVAN	C138535/01	BOX SHIPMENT 20	242	96	149	8,740	20,740
MILVAN	C138535/07	BOX SHIPMENT 20	242	96	149	9,780	25,740
MILVAN	C138535/08	BOX SHIPMENT 20	242	96	149	13,750	30,740
MILVAN	C138535/09	BOX SHIPMENT 20	242	96	149	13,750	35,740
MILVAN	C138535/10	BOX SHIPMENT 20	242	96	149	13,750	40,740
MILVAN	C138535/11	BOX SHIPMENT 20	242	96	149	16,900	45,740
MILVAN	C138535/12	BOX SHIPMENT 20	242	96	149	2,720	9,780
MILVAN	C138535/12	BOX SHIPMENT 20	242	96	149	21,900	51,900
MILVAN	C138535/13	BOX SHIPMENT 20	242	96	149	16,900	41,900
MILVAN	C138535/15	BOX SHIPMENT 20	242	96	149	5,770	15,740
MILVAN	C138535/24	BOX SHIPMENT 20	242	96	149	21,900	46,900
SEAVAN	YA0096/01	LOW DENSITY 40	480	96	96	1,275	6,900
SEAVAN	YA0096/02	LOW DENSITY 40	480	96	96	4,600	12,800
SEAVAN	YA0096/03	LOW DENSITY 40	480	96	96	5,770	17,800
SEAVAN	YA0096/04	LOW DENSITY 40	480	96	96	8,740	22,800
SEAVAN	YA0096/05	LOW DENSITY 40	480	96	96	9,780	27,800
SEAVAN	YA0096/06	LOW DENSITY 40	480	96	96	13,720	32,800
SEAVAN	YA0096/07	LOW DENSITY 40	480	96	96	14,100	42,800
SEAVAN	YA0096/08	LOW DENSITY 40	480	96	96	16,220	47,800
SEAVAN	YA0096/09	LOW DENSITY 40	480	96	96	17,050	52,800
SEAVAN	YA0096/10	LOW DENSITY 40	480	96	96	18,900	57,800
SEAVAN	YA0096/11	LOW DENSITY 40	480	96	96	21,720	67,200
SEAVAN	YA0096/12	LOW DENSITY 40	480	96	96	2,250	13,300
SEAVAN	YA0096/13	LOW DENSITY 40	480	96	137	2,350	17,800
SEAVAN	YA0096/14	LOW DENSITY 40	480	96	137	5,740	22,800

21. BLOCKING AND BRACING

Containers are easily damaged. The cost of damaged containers to the Government is high. Special care must be taken to keep loads from shifting. All spaces not stuffed must be filled with dunnage. When cargo requires bracing against container walls, a 4- by 8-foot sheet of $\frac{3}{4}$ -inch plywood should be placed against the container wall and properly braced using 2- by 4-inch dunnage to at least three-fourths the cargo height. Doing this will minimize the chances of puncturing the container walls. When possible, the load should be braced at the back of the container to prevent the cargo from spilling when the container doors are opened at the destination.

22. CONTAINER EXPRESS

a. When more than one container express (CONEX) container is moved on a semitrailer, they should be lashed together at the corners using at least #9 wire. CONEX containers should be centered over the axle of the front wheel of the rear duals on an M871 trailer, and over the center dual of the M872 trailer. They should then be lashed to the trailer using chains and binders or $\frac{3}{8}$ -inch wire rope. This lashing should be done at 45-degree angles. Figure 8 shows the proper way to lash containers to M871 and M872 trailers.

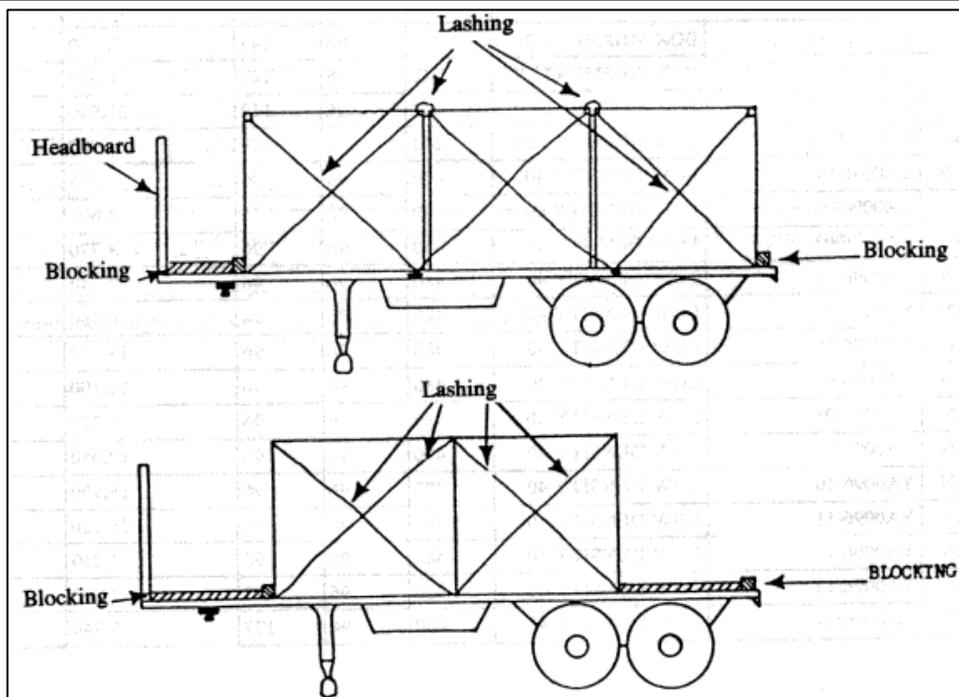


Figure 8. Lashing CONEX Containers on M871 and M872 Trailers

b. CONEX containers may be loaded on the M35-series (2½-ton) and the M923-series (5-ton) trucks. The CONEX container should be centered over the axle of the front wheel of the rear dual wheels and lashed to the lashing rings with at least 5,000-pound chain-and-load binder or $\frac{3}{8}$ -inch wire rope. These containers also may be loaded into the M988-series heavy expanded mobility tactical truck (HEMTT). The CONEX should be centered in the bed of the vehicle and lashed down. As with all cargo vehicles, crib-type dunnage of 4- by 4-inch dunnage should be placed on the cargo floor to block-in the bottom of the CONEX. Figure 9 shows the proper way to load CONEX containers on M35- and M923-series vehicles. Figure 10 shows the proper way to load CONEX containers on M988 HEMTT-series vehicles.

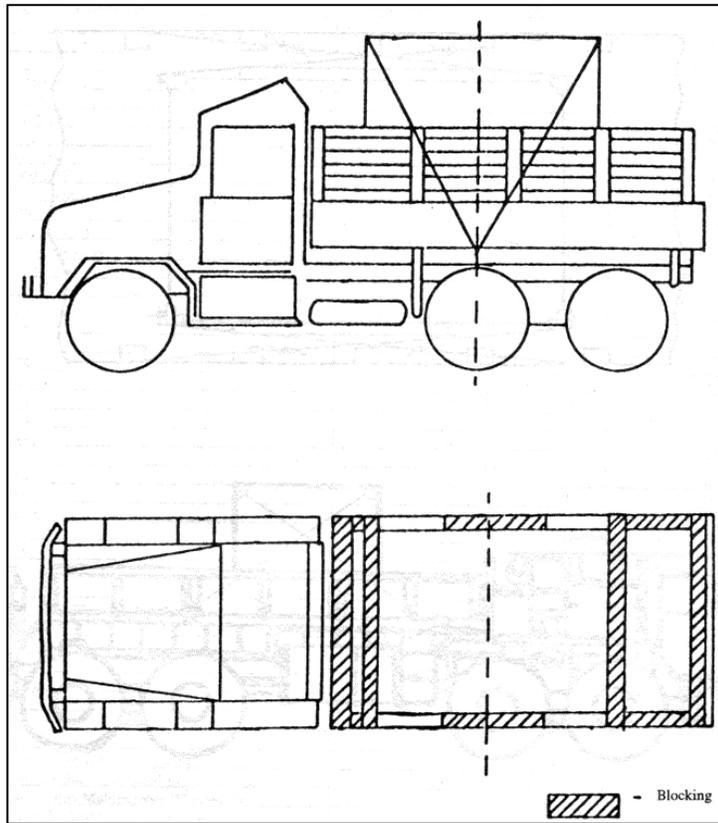


Figure 9. CONEX Containers on M35- and M923-Series Vehicles

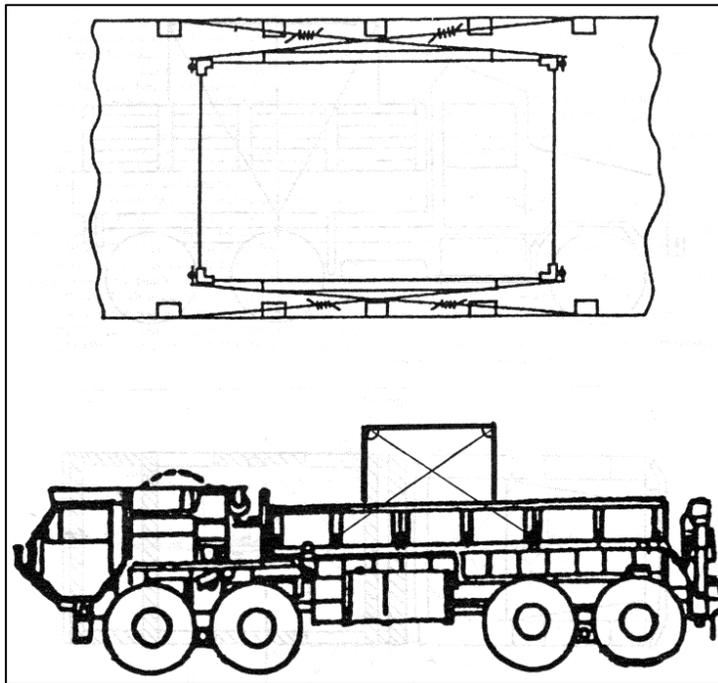


Figure 10. CONEX Containers on M988 HEMTT-Series Vehicle

**SECTION V
VEHICLES**

23. LOADING

The limiting factor in loading vehicles is the vehicle’s length and width. Height and weight usually will fall within allowable limits. Table 3 shows how many vehicles can be loaded on each type of 21st TSC equipment based on dimensions.

Table 3 Load Limits for Trailers			
Type Vehicle (note 1)	Stake-and-Platform Series (M871/M872)	Lowbed M172, 25 Ton	Heavy Equipment Transporter
4,000 RTFL	2	2	0
6,000 RTFL	1	1	1 (note 2)
10,000 RTFL	0	1	1 (note 2)
40-Ton Crane	0	0	1 (note 2)
Armored Vehicle Launched Bridge (bridge only)	0	1	0
Commercial Utility Cargo Vehicle	2	1	0
HMMWV	2	1	0
M-1	0	0	1 (note 2)
M1008	2	1	0
M1009	2	1	0
M106	2	1	1 (note 2)
M109 (Howitzer)	0	0	1 (note 2)
M109A3 (Van)	0	1	0
M10A	0	1	1 (note 2)
M113A3	2	1	0
M149 (½-ton)	4	2	3
M-2	0	1	1 (note 2)
M-3	0	1	1 (note 2)
M35A2C	1	1	0
M548	0	1	0
M54A2C	0	1	0
M559	0	0	1 (note 2)
M577	1	1	1
M578	0	0	1 (note 2)
M60A3	0	0	1
M728	0	0	1
M746	0	0	1
M747	0	0	1
M754	0	1	1
M813	1	1	0
M818	1	1	0
M88A1	0	0	1 (note 2)
M9 ACE	0	1	1

Table 3 Load Limits for Trailers (Continued)			
Type Vehicle (note 1)	Stake-and-Platform Series (M871/M872)	Lowbed M172, 25 Ton	Heavy Equipment Transporter
M911	0	0	1 (note 2)
M915	0	1	0
M916	0	1	0
M920	0	1	1
M923	1 (note 2)	1	1
M925	1 (note 2)	1	1
M929	0	1	1
M931	1 (note 2)	1	1
M935A2	0	0	1 (note 2)
M977	0	0	1 (note 2)
M978	0	0	1 (note 2)
M984	0	0	1 (note 2)
Multiple-Launch Rocket System	0	1	1 (note 2)
NOTES: 1. TB 55-46-1 lists dimensions of military wheeled, tracked, towed, and containerized equipment for vehicles not listed in this table.			
2. Special routing is required for M911/M747 HETs caused by load height.			

24. BLOCKING AND BRACING M113 OR M577 VEHICLES ON M871/M872 SEMITRAILERS

The M-2 Bradley fighting vehicle may be loaded only on an M870 lowbed or M747 heavy equipment transporter (HET) trailer.

a. General Instructions.

(1) Loading M577 vehicles is similar to loading M113 vehicles except for the overhang on the sides.

(2) Handbrakes on M113 and M577 vehicles must be set. Gearshift levers for automatic or conventional transmissions must be placed and wired in neutral positions.

(3) Wire rope must be made taut enough to cause a slight vehicle body depression.

b. The ½-Inch Wire Rope Tiedown Method. Figure 11 shows items needed to block and tie down M113 and M577 vehicles on M871/M872 semitrailers.

(1) The M113 or M577 vehicle will be centered lengthwise on the M871/M872 semitrailer.

(2) The front right and left sides will be blocked with blocks cut from 8- by 8-inch material. The longest angle end (45 degrees) will be placed under the right and left tracks at the front (fig 12). Nails will be toed to the semitrailer floor with thirty penny (30D) nails (four nails on the front, two nails on the rear, and two nails on each side of each block).

(3) The rear right and left sides will be blocked the same way as the front.

(4) Cleats will be cut from one piece of 2- by 4-inch lumber the same length as the tracks bearing on the semitrailer floor with 16D nails.

(5) Spreaders will be cut from one piece of 2- by 4-inch lumber. Spreaders will be placed crosswise between the end and center of the cleats. Each piece will be nailed to the semitrailer floor with four 16D nails.

(6) One shackle will be secured to each towing lug (two at the front of the vehicle and two at the rear).

(7) One thimble will be placed under each stake pocket used.

(8) One side of the turnbuckle will be secured through each shackle and the wire rope attached to the opposite side.

(9) Wire rope ends will be secured with four clamps after passing the wire rope ends through the stake pocket and thimble.

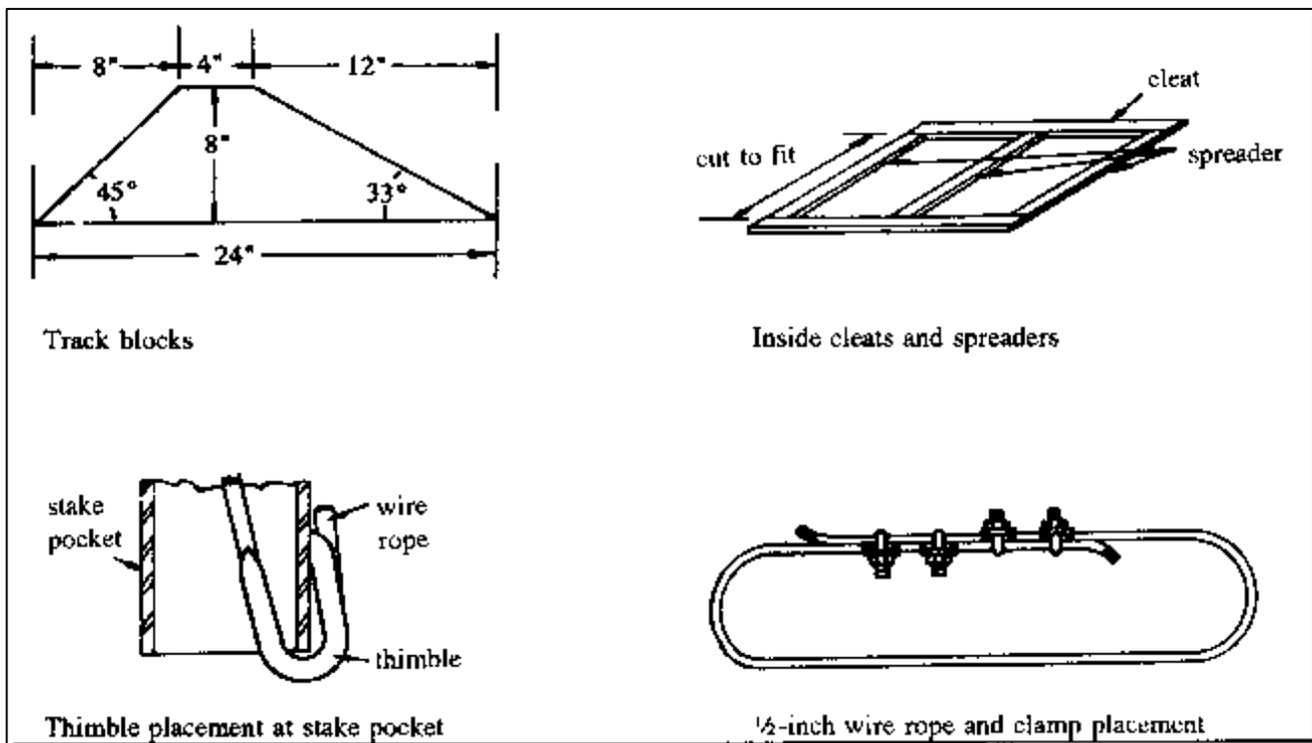


Figure 11. Blocking and Tie-Down Items

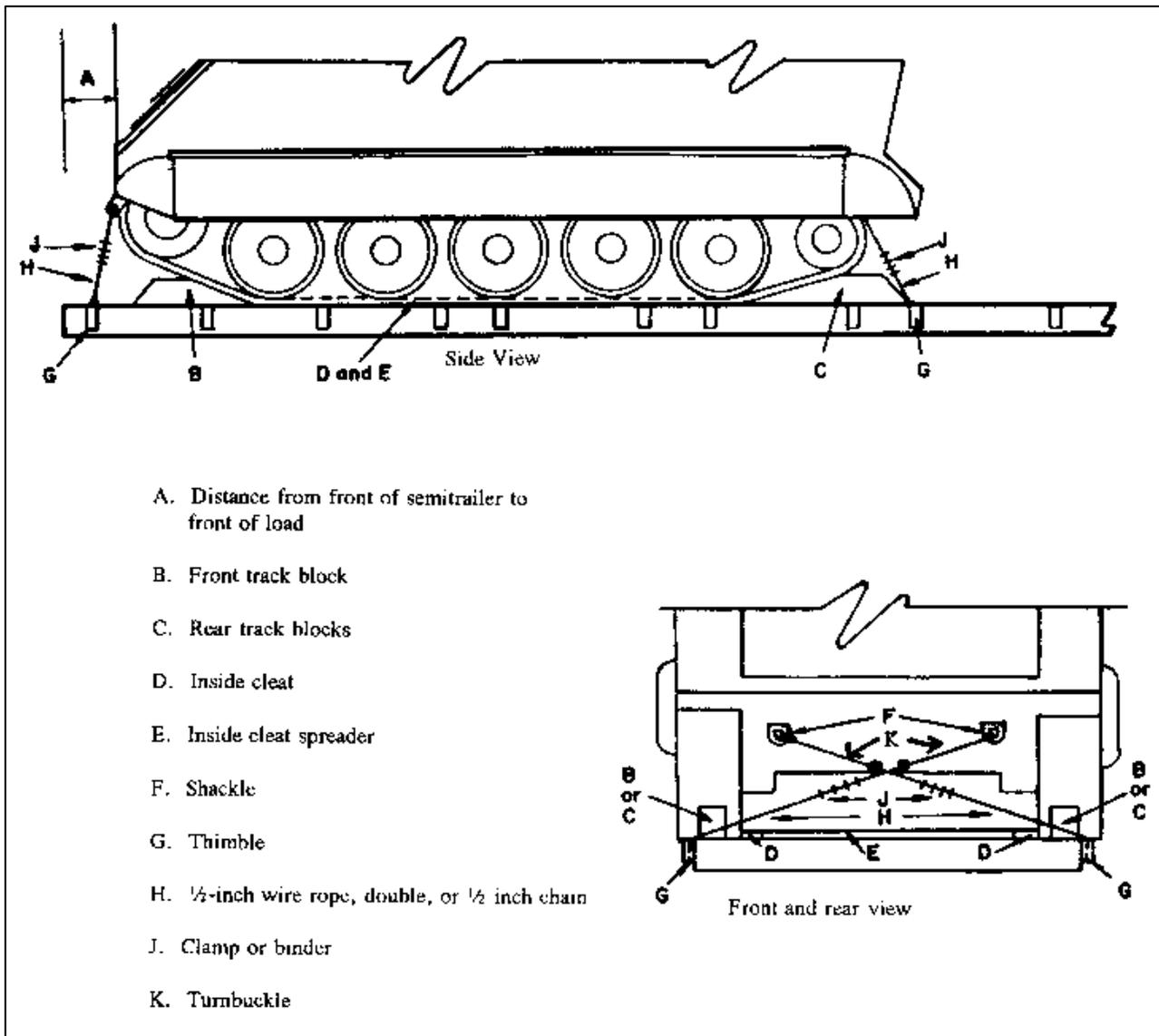


Figure 12. Blocking and Tie-Down Diagram and Rear Views

25. BLOCKING AND BRACING VEHICLES ON LOWBED TRAILERS

- a. Under the 1/2-inch wire rope method in paragraph 24b, the vehicle to be loaded must be placed as far forward as possible until flush with the trailer.
- b. Wheeled and tracked vehicles will be blocked as if they were being loaded on a semitrailer. If there is enough space after the vehicle being transported is flush with the trailer front, blocking must be done as prescribed in paragraph 24.
- c. Wire rope (1/2-inch) must be looped through the towing shackles to the closest trailer stake pocket.
- d. Transmissions must be put in neutral positions. Handbrakes must be set.

26. BLOCKING AND BRACING TRACKED VEHICLES ON 55-TON SEMITRAILERS

a. Although the HET is compatible with most vehicles, it is not economical to use HETs to move vehicles smaller than class 50.

b. Blocking and bracing instructions are as follows:

(1) The load will be positioned on the 55-ton semitrailer.

(2) Handbrakes must be set.

(3) Gear-shift levers for automatic or conventional transmissions must be placed and wire-tied in neutral positions.

27. BLOCKING AND BRACING WHEELED VEHICLES ON M871/M872 SEMITRAILERS

a. Figure 13 shows a six-wheeled vehicle blocked and braced on an M871/M872 trailer.

b. Wheel blocks will be cut from 8- by 8-inch material with 45-degree angles. The 45-degree portions of the blocks must be placed against front and rear wheels, in front of the outside intermediate wheels, and behind the outside rear wheels. Figure 13 shows how 30D nails will be nailed to the semitrailer floor: two nails on front, two nails on the rear, and two nails on each side of each block.

c. Suitable material (for example, waterproof paper, burlap) must be placed between blocks and wheels to prevent chafing. The bottom portion will be under the wheel block. The top portion should extend 2 inches above the wheel.

d. Two pieces of 2- by 4- by 36-inch wood and one piece of 2- by 6- by 36-inch wood will be blocked against all wheels. The 2- by 6- by 36-inch wood piece will be blocked against the semitrailer floor and secured with 30D nails. The two pieces of 2- by 4- by 36-inch wood will be nailed on the top of the 2- by 6- by 36-inch wood piece (fig 13C). Vehicles too wide to have blocks placed against the outside will be blocked with wood against the inside of the wheels.

e. At each towing shackle, four strands of #9 gauge twisted wire must be attached from the towing shackle to tie-down points on the trailer. A 2- by 2-inch wood piece must be inserted between wires and twisted for tightness. One end of the wood piece must be secured to the semitrailer floor with a 20D nail.

f. The #9 gauge wire must be passed through the front and rear wheels and looped through the stake pocket. The wires must be crossed and tightened with a 2- by 2-inch wood piece as in subparagraph e above. One end of the wood piece must be secured to the wheel bracing (d above) with a 20D nail.

g. Handbrakes must be set. Gearshifts must be placed in neutral.

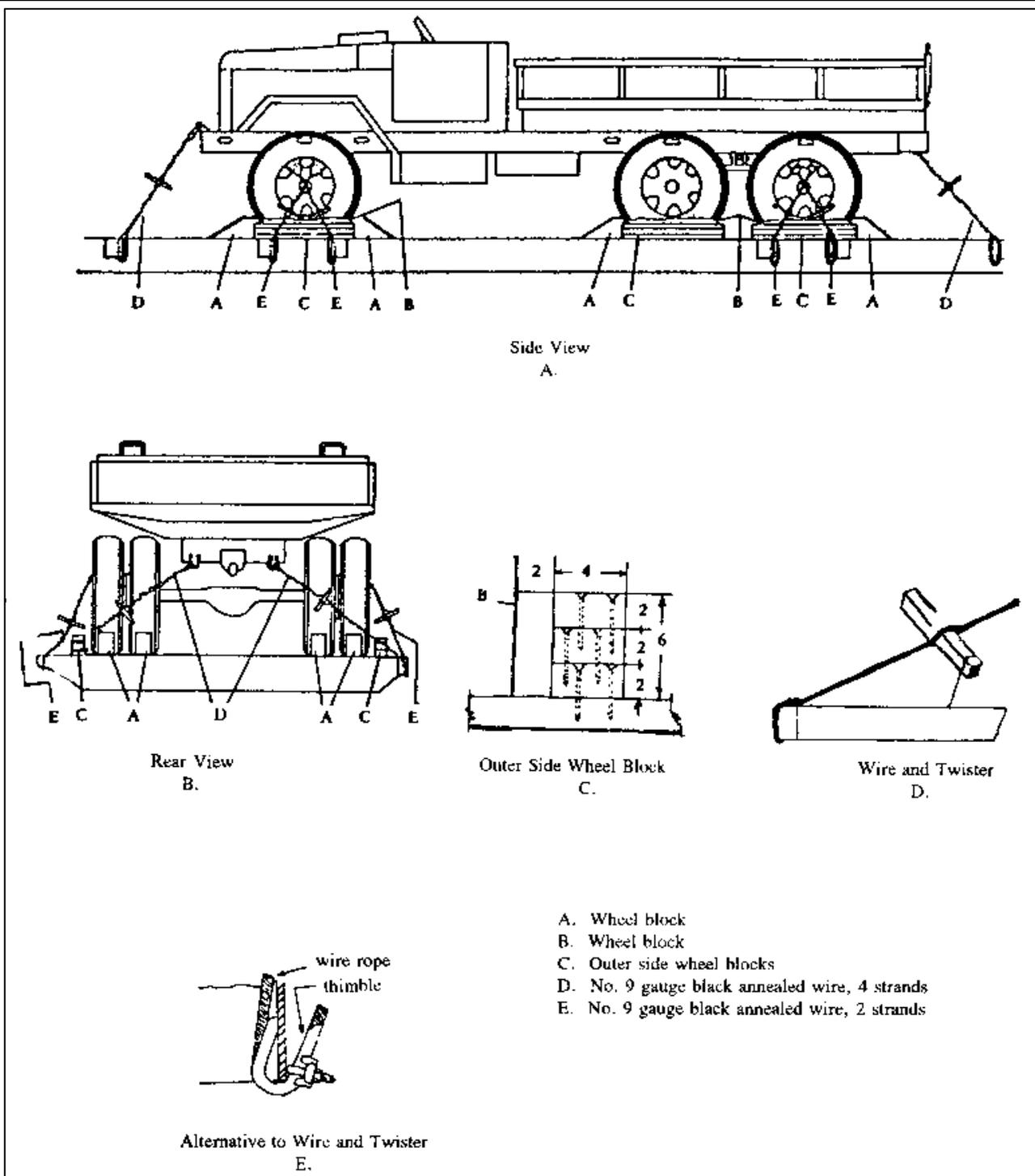


Figure 13. Six-Wheel Truck on M871/M872 Trailer

28. BLOCKING AND BRACING M1009, 1/4-TON TRUCKS ON M871/M872 SEMITRAILERS

a. Loading One M1009, 1/4-Ton Truck. The vehicle will be centered on the semitrailer. The instructions in paragraphs 27b through g must be followed.

b. Loading Two or More M1009, 1/4-Ton Trucks.

(1) When two or more vehicles are loaded on a semitrailer, each will be centered on the trailer bed with approximately 2 feet between vehicles. The instructions in paragraphs 27b through g must be followed.

(2) When three or more trailers are loaded on a trailer, blocking and bracing procedures will be similar to those used when loading two vehicles. Specific instructions for loading three or more trailers are as follows:

(a) Spare tires must be removed, placed on the trailer bed, lashed, and secured using either 5,000-pound ratchet devices or 1-inch rope.

(b) The tongue of the first trailer will be placed flush against the headboard and blocked and braced against the trailer bed.

(c) The second trailer will be loaded by placing the tongue under the first trailer, lashing to the trailer bed, and blocking as in (b) above.

(d) The third trailer will be loaded using the same method as (c) above.

(e) Each trailer will be tied down at each corner by running #9 gauge wire or 1/4-inch cable from the tie-down on each wheel hub to the tiedown on the trailer floor.

(f) Figure 14 shows the proper loading of three or more trailers on the M871/M872 trailer.

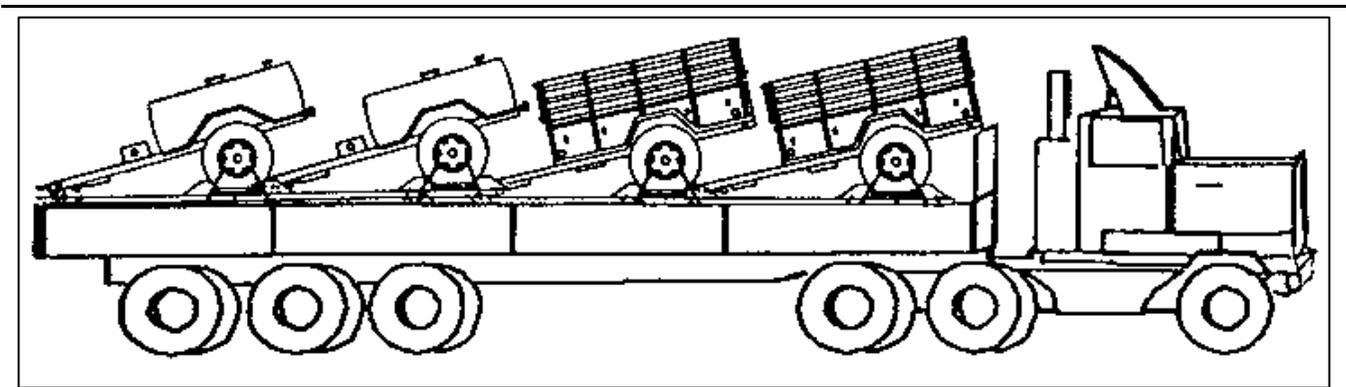


Figure 14. Three or More Trailers on M871/M872 Trailer

APPENDIX A REFERENCES

Accord Européen relatif au Transport International des Marchandises dangereuses par Route (European Agreement Concerning the Transportation of Hazardous Goods by Highway)

Field Manual 55-15, Transportation Reference Data

AR 385-64, U.S. Army Explosives Safety Program

DA Pamphlet 75-5, List of Storage and Outloading Drawings for Ammunition

DA Pamphlet 385-64, Ammunition and Explosives Safety Standards

Technical Manual 3-250, Storage, Shipment, Handling, and Disposal of Chemical Agents and Hazardous Chemicals

Technical Bulletin 55-46-1, Standard Characteristics (Dimensions, Weight, and Cube) for Transportability of Military Vehicles and Other Outsize/Overweight Equipment

AE Regulation 55-1, United States Army Motor Vehicle Operations on Public Roads

AE Regulation 55-4, Safe Movement of Hazardous Goods by Surface Modes

AE Regulation 55-355, Joint Transportation and Traffic Management Regulation

USAREUR Regulation 55-3, USAREUR Movements Control System Program

United States Army Materiel Command Drawing 19-48-75-5, Index of U.S. Army Utilization, Storage, and Outloading Drawings for Ammunition and Components
(<https://www3.dac.army.mil/DET/dapam/toc.html>)