

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

Transportability Guidance
 SHOP EQUIPMENT, GENERAL PURPOSE REPAIR,
 SEMITRAILER MOUNTED, COUSE MANUFACTURE, MODEL MEDL

Headquarters, Department of the Army, Washington, D.C.
 12 January 1964

	Paragraph	Page
Purpose	1	1
Scope.....	2	1
Modes of transport	3	1
Sectionalization.....	4	2
Item characteristics and related data	5	2

1. Purpose

This manual provides transportability guidance in the shipment or movement of the Shop Equipment, General Purpose Repair, Semitrailer Mounted, Couse Manufacture, Model MEDL (fig. 1).

2. Scope

a. The information contained in this manual covers significant transportability and safety considerations in the movement of the item by the various modes of transport. Included are side- and end-elevation drawings, figures 2 and 3, and characteristics of the item.

b. Report all deficiencies in this manual on DA Form 1598 (Record of Comments on Publications). Submit recommendations for changes, additions or deletions to the Commanding Officer, US Army Transportation Engineering Agency, ATTN: TCTEA-TG, Fort Eustis, Va. 23604.

3. Modes of Transport

NOTE

Figures in parentheses throughout this manual are metric equivalents.

a. *Shipment by Air.* The item is not transportable by US Army aircraft. Based on a typical logistical mission of 1,000 nautical miles, (1852 km), one way, the

item is transportable without sectionalization in the C124A, C-124C, and C-133A US Air Force aircraft. After sectionalization, as described in paragraph 4, the item can be transported in the C-130A US Air Force aircraft. Shipment in some models of the C-130A will require shoring where the wheels of the item overlap the inside edge of the aircraft treadway.

b. *Shipment by Highway.*

- (1) *On Road.* The item is transportable by highway, towed by the Truck, Tractor, 5 Ton, 6x6, M52, or equal. See figure 5 for turning characteristics of this combination. See TB 55-1 for characteristics of the Truck, Tractor, M52. The item width exceeds the legal highway limitations in CONUS and the recommended highway width and height limitations in oversea areas. Special permits will be required in CONUS and special routing may be required in oversea areas.
- (2) *Off Road (Soils Trafficability Data).* The vehicle cone index (VCI) is a

number which tests have proven can be related to the characteristics of a particular vehicle. This number, when used in connection with the rating cone index (of the soil), can forecast the ability of that vehicle to repeatedly cross soft, poorly drained soils. The rating cone index is obtained by use of the cone penetrometer and its associated equipment. See TB ENG 37 for the use of the equipment in the field and for the interpretation of index numbers.

Item 1. Truck, Tractor, 5 Ton, 6 x 6, M52, VCI 53 WWN at curb weight plus personnel-19,346 lb (8775.35 kg).

Item 2. Truck, Tractor, 5 Ton, 6 x 6, M52, VCI 70 WWN at curb weight plus personnel-19,346 lb (8775.35 kg) towing the Shop Equipment, General Purpose Repair, Semitrailer Mounted at operational weight of 23,000 lb (10432.8 kg).

c. Shipment by Rail. The item loaded on a railroad flatcar is transportable, without sectionalization, within the Approved Limited Clearances of the Association of American Railroads. In countries complying with the Berne International Rail Interchange Agreement, the item is transportable by rail but exceeds height limitations and will require a depressed-center car, special routing, and/or restricted movement. After sectionalization as

outlined in paragraph 4, the item is transportable without limitation on a single flatcar.

d. Shipment by Water. The item is transported by inland waterway cargo carriers and lighters of adequate capacity. It can be shipped by Mariner, Victory, and Liberty class seagoing vessels, subject to the following limitations:

Class	Hatch size adequate	Hatch boom adequate	Hatches requiring terminal crane
1 Mariner	Nos. 2, 3, 4, 5, 6, 7	Nos. 4, 6	Nos. 2, 3, 5, 7
2 Victory	Nos. 3, 4	Nos. 3, 4	None
3 Liberty	Nos. 1, 2, 4, 5	Nos. 2, 4	Nos. 1, 5

4. Sectionalization

Sectionalization can be effected and the overall height can be reduced from 114.5 inches (2.91m) to 103 inches (2.62 m) and the width reduced from 97 inches (2.46 m) to 95 inches (2.41 m), by removing the four wheels and tires and lowering the vehicle to shoring. This may be accomplished by the use of jacks or other lifting devices with a minimum capacity of 12 tons (10.89 mt). The trailer supporting jacks, located toward the front of the vehicle, must be retracted prior to lowering the vehicle. The removed tires and wheels can be secured under the trailer gooseneck for shipment. Other than crane or jacks, no special tools are required. See figure 4 for sectionalization diagram and shipping dimensions.

5. Item Characteristics and Related Data

(Data based on item in loaded condition unless otherwise indicated.)

Nomenclature-Shop Equipment, General Purpose Repair, Semitrailer Mounted, Couse Manufacture, Model MEDL	
FSN.....	4940-287-4894
BEAM.....	272165
Type Classification.....	Standard A
Soils Trafficability Data (See par. 3b(2))	
Item 1. Truck, Tractor, M52 (curb weight plus personnel)	VCI 53
Item 2. Truck, Tractor, M52 (curb weight plus personnel), towing Shop Equipment, Semitrailer Mounted.	VCI 70
Vehicle Classification	
Shop Equipment, Semitrailer Mounted.....	11
Shop Equipment, Semitrailer Mounted towed by Truck, Tractor M52.....	20
Center of Gravity (longitudinal):	
From C/L King Pin	140 inches (3.56 m)
Tire Size.....	11:00 x 20 (.28 x .51 m), 12-ply
Tire Pressure	65 p.s.i. (4.57 kg/sq cmn)
Angle of Departure	28
Turning Radii (R&L) w/Truck, Tractor, M52, WWN (over front bumper)	39.8 ft (12.13 m)

CONUS Freight Classification-Outfits, equipped for the repair of Army Tanks, Military Instruments, Military Motor Vehicles or Ordnance, Trailer Mounted, each unit weighing not less than 12,000 lb.

Uniform Freight Classification (UFC)Item 73750

National Motor Freight Classification (NMFC)Item 147530

Item Dimensions:

Length319 inches (8.10 m)

Width97 inches (2.46 m) reducible to
95 inches (2.41 m)

Height114.5 inches (2.91 m) reducible
to 103 inches (2.62 m)

Item Weight:

King Pin9,000 lb (4082.4 kg)

Axle14,000 lb (6350.4 kg)

Total23,000 lb (10432.8 kg)

Landing Gear.....15,000 lb (6804.0 kg)

Axle8,000 lb (3628.8 kg)

Total23,000 lb (10432.8 kg)

Shipping Data:

Operational:

Volume2,050.33 cu ft (58.02 cu m)

Area214.9 sq ft (19.96 sq m)

Weight23,000 lb (10432.8 kg)

SectionalizedSee figure 4

PublicationsTM 5-9128-1

TM 5-9128-2

TM 5-9128-3

TB 55-1

TB ENG 37

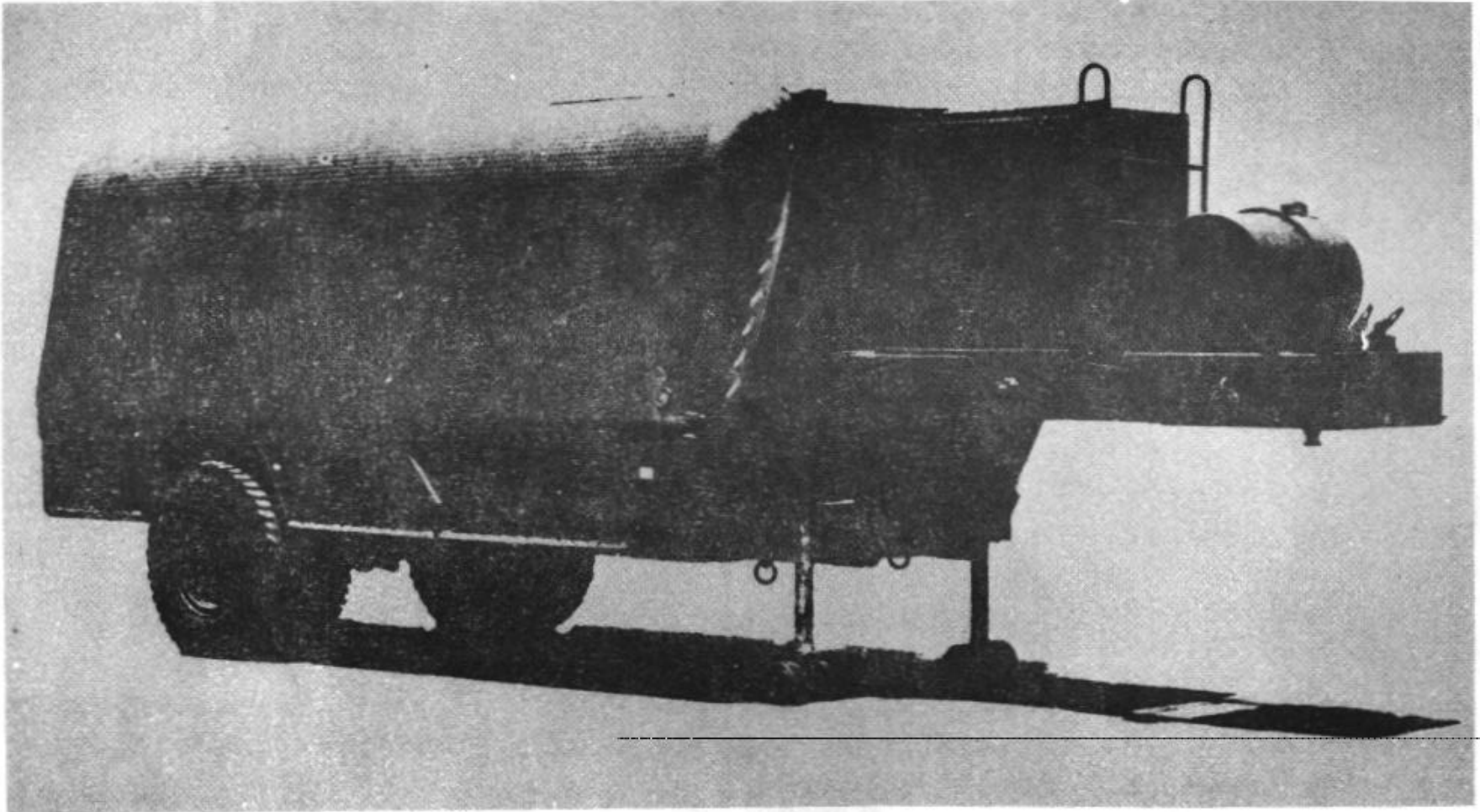
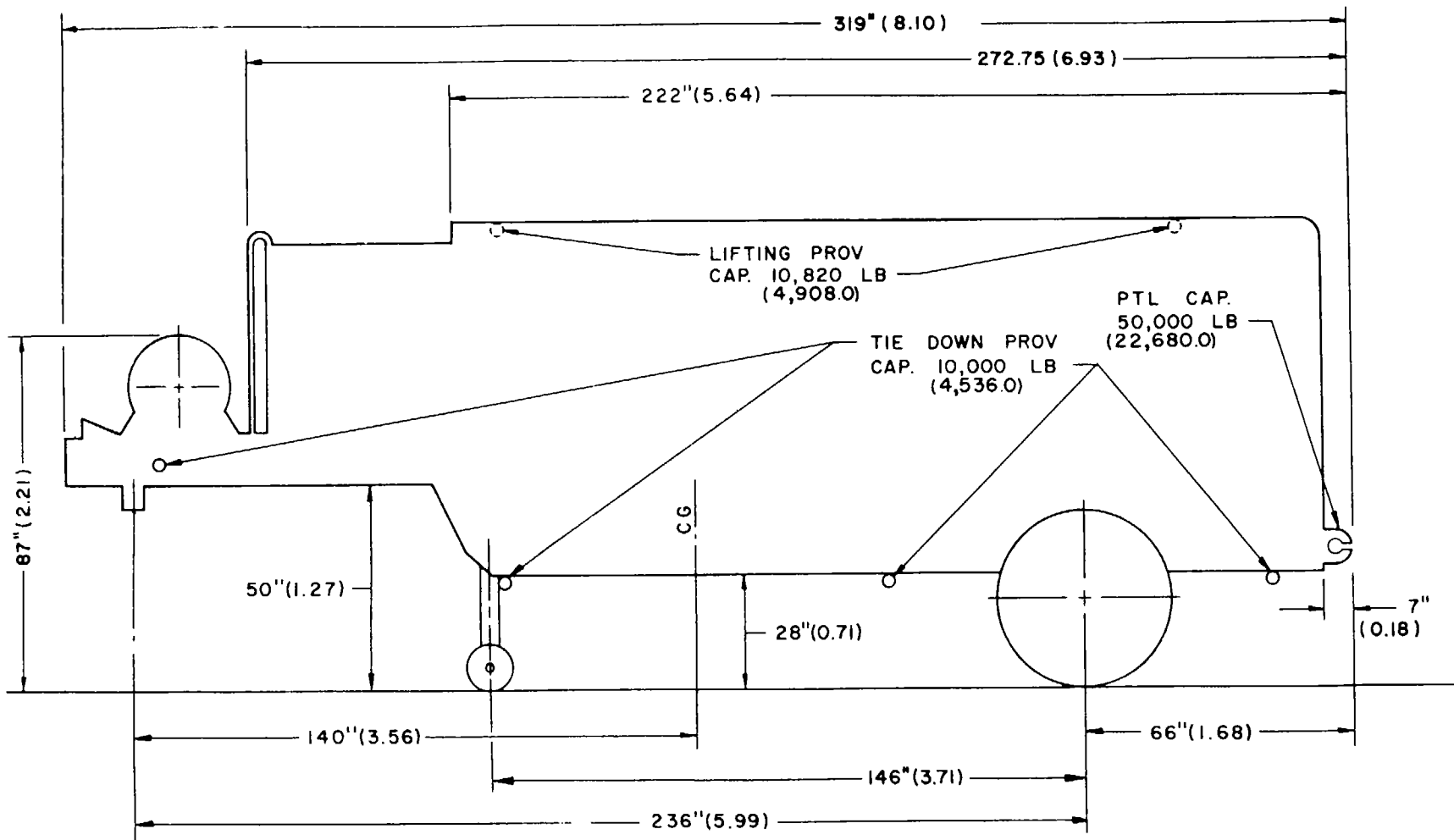


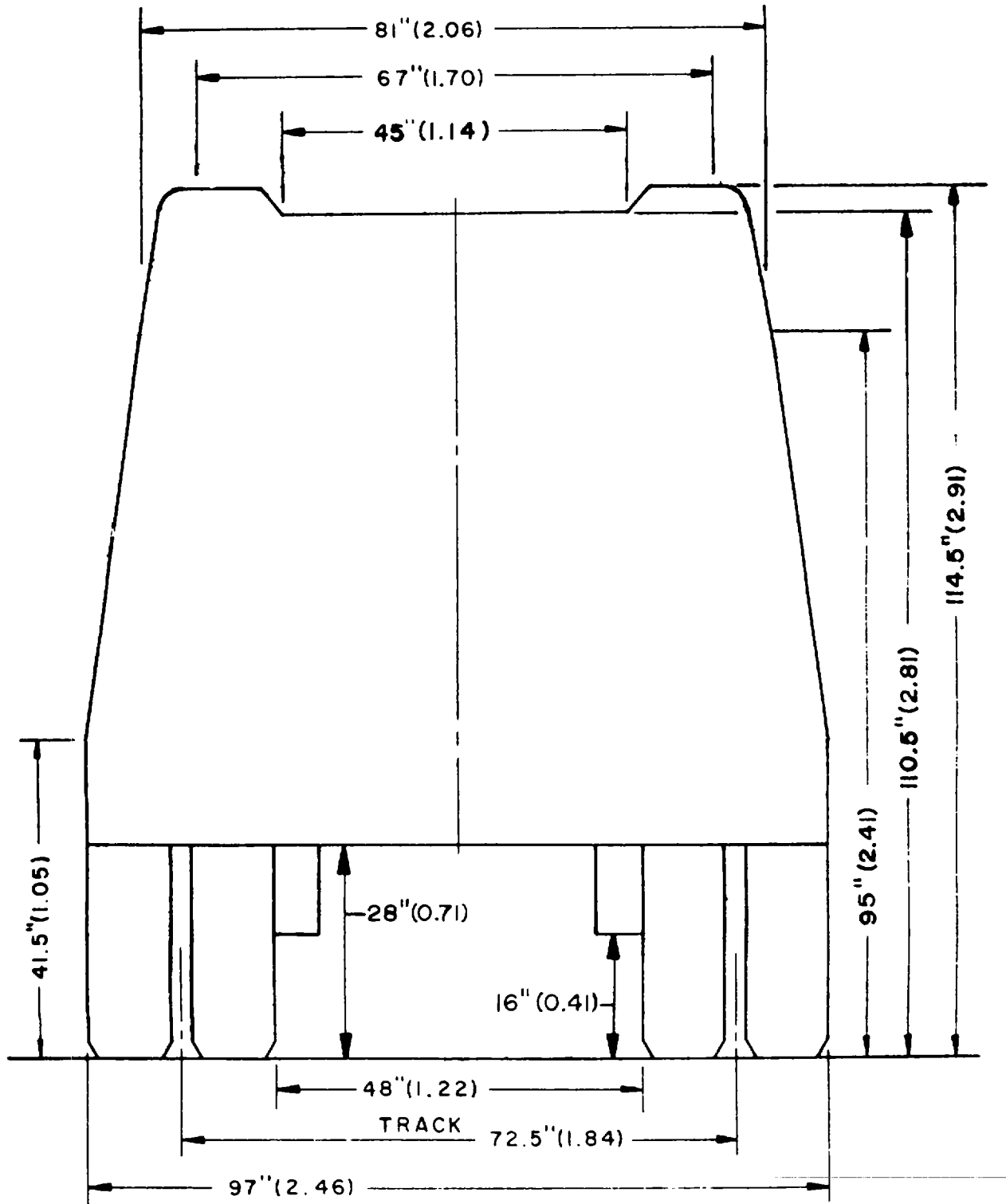
Figure 1. Shop equipment, general purpose repair, semitrailer mounted, Couse manufacture, model MEDL.

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FIGURES IN PARENTHESES ARE METRIC EQUIVALENTS
 DIMENSIONS ARE IN METERS
 WEIGHTS ARE IN KILOGRAMS
 SCALE 1: 40

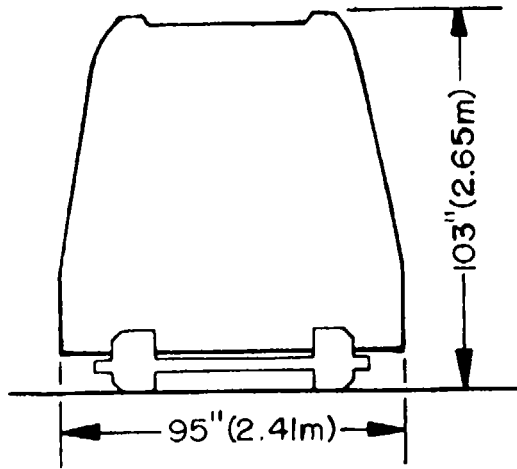
Figure 2. Side elevation.



FIGURES IN PARENTHESES ARE METERS

SCALE 1:20

Figure 3. End elevation.



SHIPPING DATA

WT.	23,000 LB (10432.8 kg)
VOL.	1,806.4 CU FT (51.12 cu m)
AREA	210.5 SQ FT (19.56 sqm)

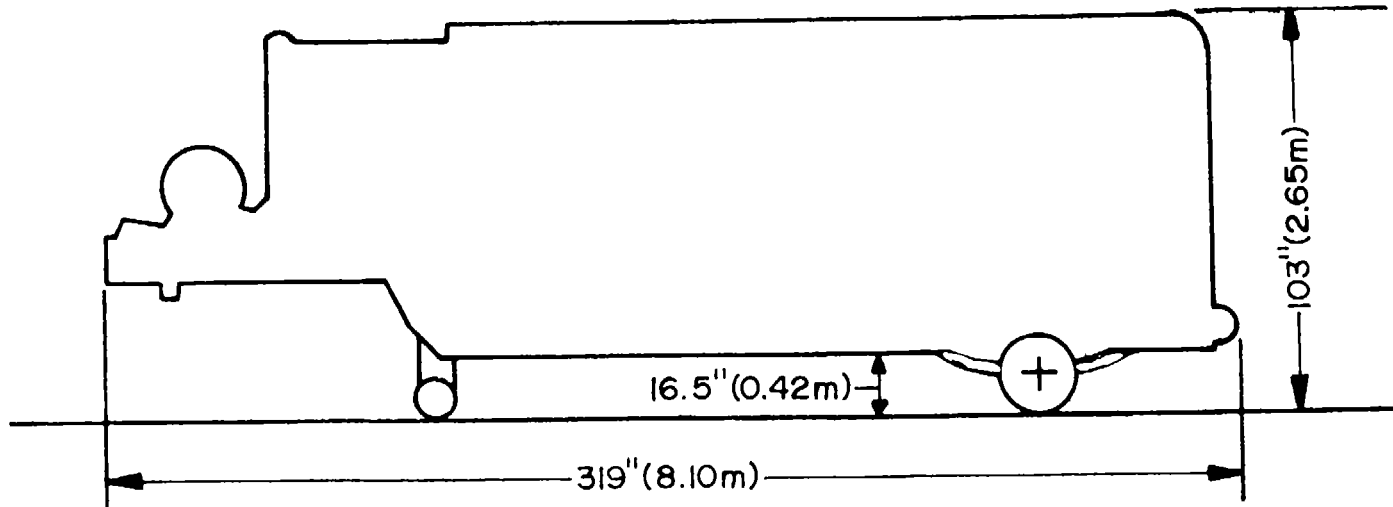
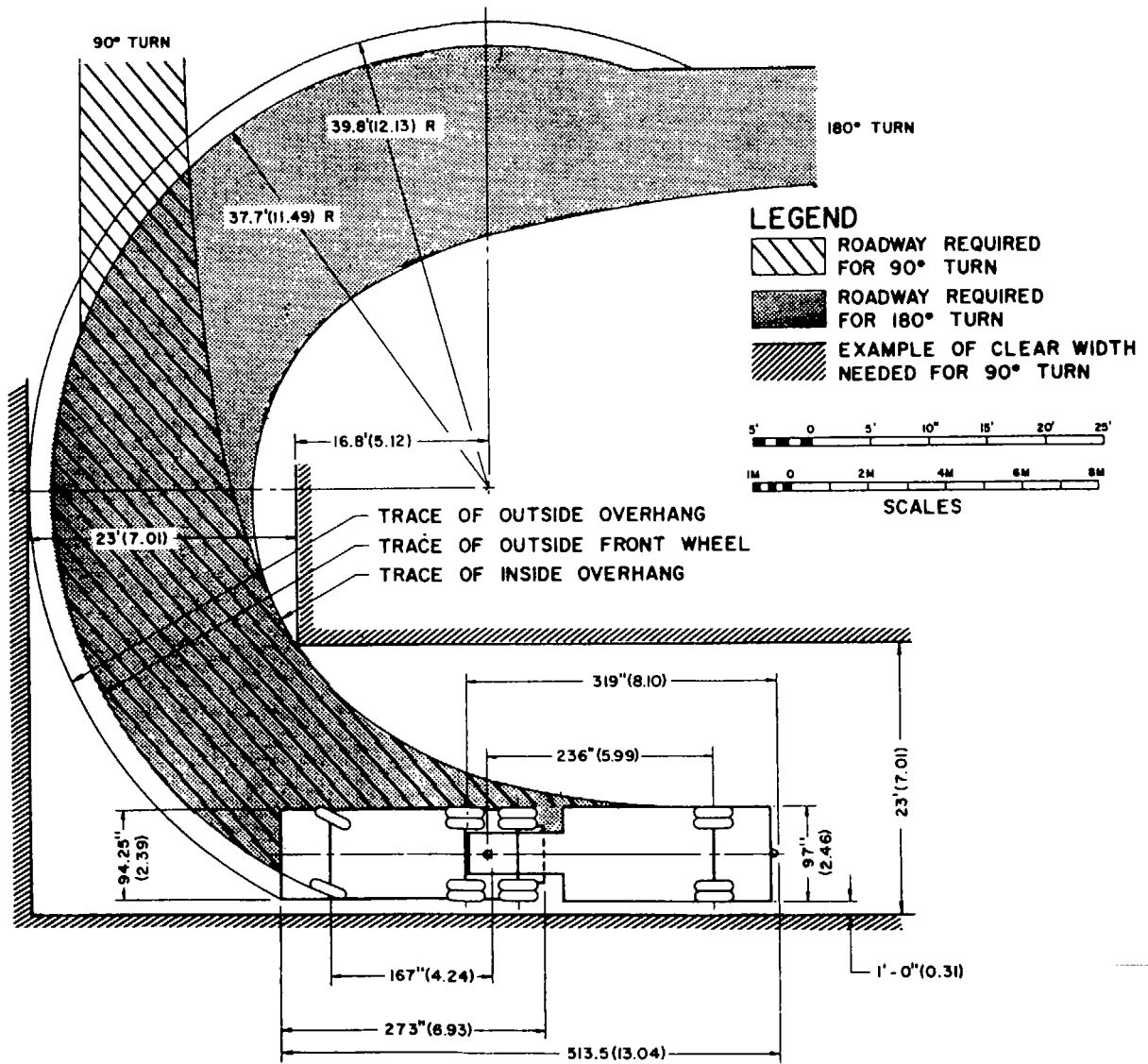


Figure 4. Sectionalization diagram.



FIGURES IN PARENTHESES ARE METERS

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Figure 5. Turning diagram.

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NG: State AG (3).

USAR: None.

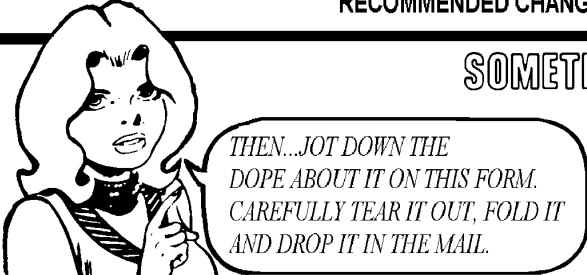
For explanation of abbreviations used, see AR 320-50.

MDW (2)
Armies (5)
29th Trans Bn (1)
Instl (2)
GENDEP (OS) (5)
Trans Sec, GENDEP (3)
Trans Dep (OS) (3)
Army Dep (2)
Svc Colleges (2)
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USAOSA (1)
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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 decigrams = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 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

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
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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