

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**TOOL KIT,
SMALL ARMS, FIELD MAINTENANCE (4933-754-0664):
INSTALLATION IN ONE 6-TON, 2-WHEEL,
SHOP VAN SEMITRAILER M146**

Headquarters, Department of the Army, Washington, D.C.
11 March 1970

This bulletin is current to 6 February 1970

1. General *a.* Instructions contained in this bulletin are to be used as a guide for installation of Tool Kit, Small Arms 4933-754-0664, in one 6-ton, 2-wheel, Shop Van Semitrailer M-146.

b. These instructions are to be followed as prescribed in most instances. However, slight variations to the installation may be made at the discretion of the officer in charge.

c. A complete list of items contained in this kit is included in SC 4933-95-CL-A11.

d. Personnel performing this installation should have a practical knowledge of electricity. Special care should be exercised to avoid damage to wire mold and /or between walls wiring.

e. Be careful when drilling holes through the body or floor of the shop van semitrailer to insure the waterproof characteristics of the body are retained. All hardware extending through the floor of the van should have outer parts covered with undercoating similar to that used on the underside of vehicles. Care should be taken that holes drilled into the floor of the van do not penetrate the van frame or cross members.

f. Items not mentioned in this bulletin that are components of the kit may be stowed in cabinets or secured in convenient places in such a manner as to avoid damage in transit.

g. Ground all electrically powered equipment to the vehicle frame to the grounding rod furnished, as a safety precaution against electric shock to the operator.

2. Installation of shop equipment. *a.* The floor plan for the van, with each item in its designated spot is shown in figure 1. Curbside and roadside views are shown in figures 2 and 3 respectively. Items to be mounted are listed in table 1.

Table 1. Items to be Mounted and/ or Secured for Transit

FSN	Item name	Qty	Fig. no.	Item ident.
4910-543-7771	TABLE. WORK, AUTOMOTIVE MAINTENANCE:	2	1 and 2	A
4910-543-7772	TABLE. WORK, AUTOMOTIVE MAINTENANCE:	2	1, 2 and 3	B
7125-378-4261	CABINET. STORAGE	2	1 and 3	C
6115-248-2522	GENERATOR SET, GASOLINE ENGINE:	1	1 and 2	D
5120-293-1439	WISE. MACHINISTS:	2	1,2 and 3	E
3415-517-7454	GRINDING MACHINE, UTILITY:	1	1 and 2	F
5130-263-8663	STAND. PORTABLE ELECTRIC DRILL:	1	1 and 3	G
7195-357-7480	TABLE, FOLDING LEG :	1	1 and 2	H

b. Table 2 contains materials required to fabricate webbing straps for securing items in transit.

* This technical bulletin supersedes TB ORD 444-16, 1 September 1961.

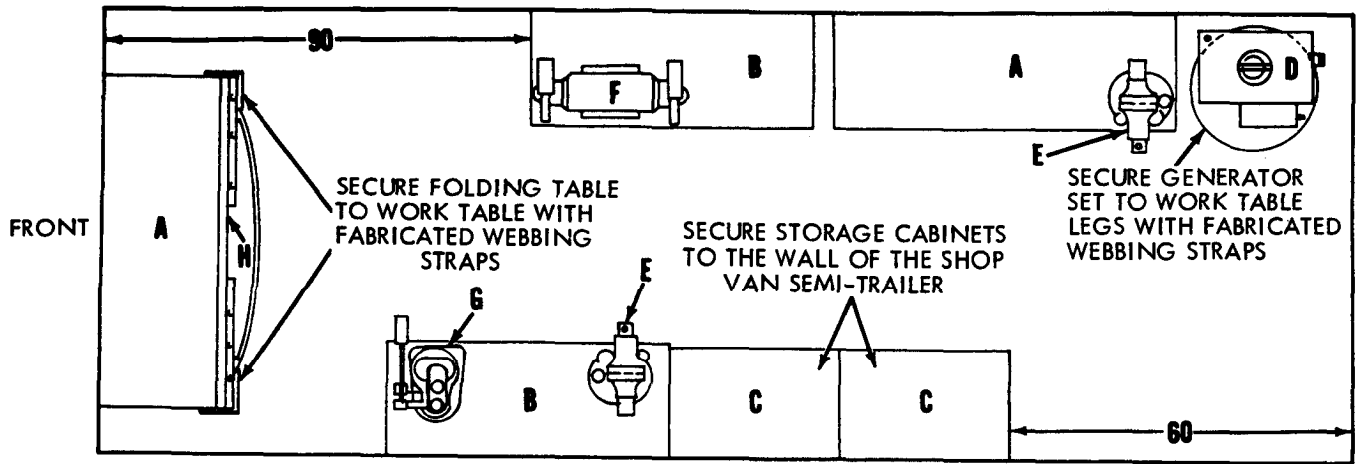
Table 2. Fabricating material

FSN	Material	Application
5340-608-8949	BUCKLE, STRAP: 1 in. webbing accommodated	For application to webbing for securing straps
8305-263-2477	WEBBING, TEXTILE: cotton, 1 in. w, 500 lb breaking str	For fabricating straps for holding generator set D and folding leg table H

c. Hardware required for installation of items in the semitrailer shop van are listed in table 3. Hardware items will be drawn from stock or through the managing activity having supply responsibility.

Table 3. Hardware

FSN	Nomenclature	Qty	Application
5306-010-2299	BOLT, LAG :5/16-9 x	2	Work table (A) center leg.
5306-638-2796	BOLT, MACHINE: hex-hd, 5/16-18x2	30	Work tables (B) and storage cabinets (C).
5306-010-9108	BOLT, SQUARE NECK: 5/16-18x3½	2	Grinding machine (F).
5306-012-6725	BOLT, SQUARE NECK: ¾-16 x 4	4	Drill stand (G).
5306-702-2821	BOLT, SQUARE NECK : ½-13 x 3½	8	Machinists vice (E).
5310-655-9949	NUT, PLAIN HEXAGON: 5/16-18	36	Work tables (A and B), storage Cabinets (C), and grinding machine (F).
5310-579-5771	NUT, PLAIN HEXAGON: ¾-16	4	Drill stand (G).
5310-531-1245	NUT, PLAIN HEXAGON: ½-13	8	Machinists vise (E).
5305-254-0093	SCREW, WOOD: fl-hd, 10-13 x 1¼	4	Storage cabinet (C).
5310-879-7929	WASHER, FLAT: 11/32	34	For 5/16 bolts
5310-698-4460	WASHER, FLAT: 13/32	4	For ¾ bolts
5310-515-9627	WASHER, FLAT: 17/32 id	8	For ½ bolts
5310-012-0214	WASHER, LQCK:split 5/16 screw size	34	For 5/16 bolts
5310-43-2705	WASHER, LOCK: split ¾ screw size	4	For ¾ bolts
5310-012-0384	WASHER, LOCK: split ½ screw size	8	For ½ bolts



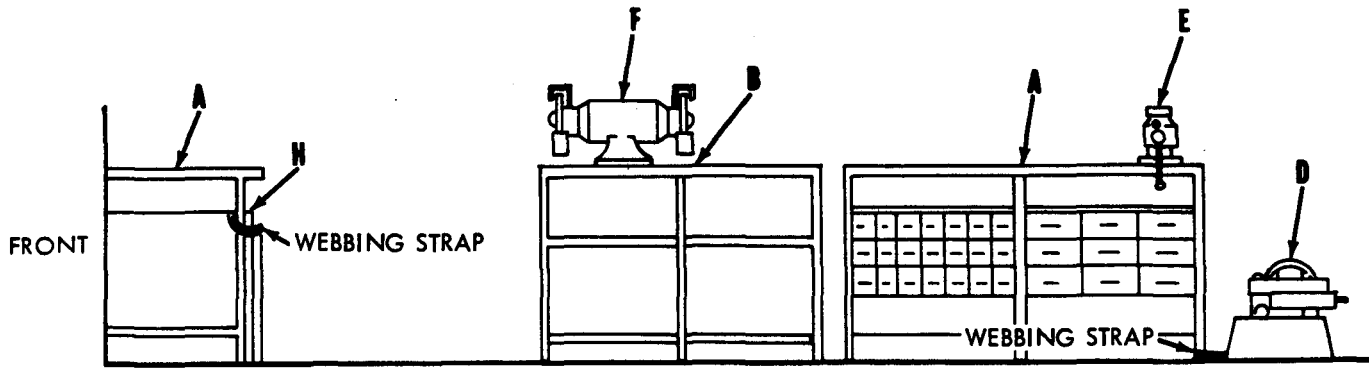
FLOOR PLAN

- A TABLE, WORK, AUTOMOTIVE MAINTNANCE - 4910-543-7771
- B TABLE, WORK, AUTOMOTIVE MAINTNANCE - 4910-543-7772
- C CABINET, STORAGE - 7125-378-4261
- D GENERATOR SET, GASOLINE ENGINE - 6115-245-2522
- E VISE, MACHINIST'S - 5120-293-1439
- F GRINDING MACHINE, UTILITY - 3415-517-7754
- G STAND, PORTABLE ELECTRIC DRILL - 5130-263-8663
- H TABLE, FOLDING LEGS - 7195-357-7480

NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES

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Figure 1. Floor plan.

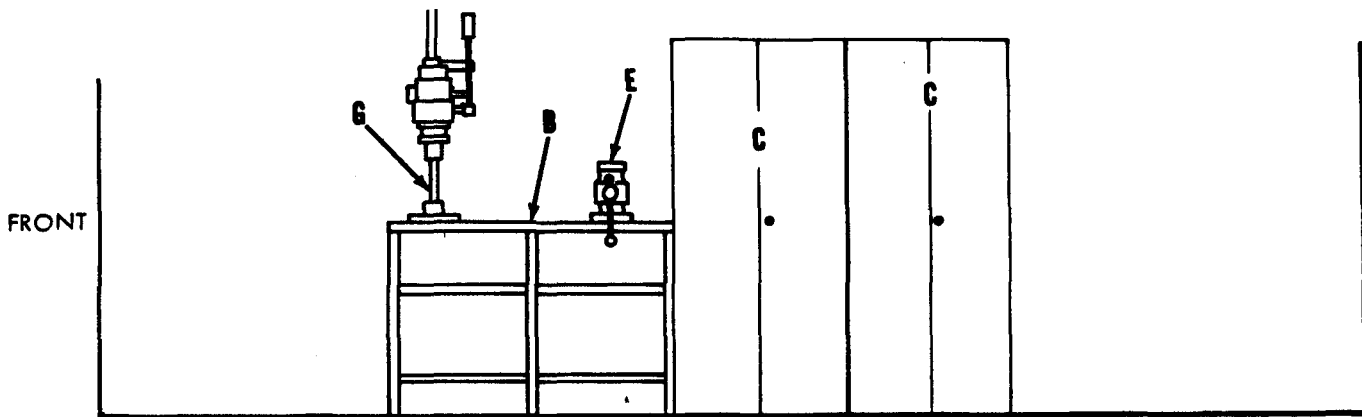


CURBSIDE VIEW

- A TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-543-7771
- B TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-543-7772
- D GENERATOR SET, GASOLINE ENGINE - 6115-245-2522
- E VISE, MACHINIST'S - 5120-293-1439
- F GRINDING MACHINE, UTILITY - 3415-517-7754
- H TABLE, FOLDING LEGS - 7195-357-7480

WE 38302

Figure 2. Curbside views.



ROADSIDE VIEW

- B TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-543-7772
- C CABINET, STORAGE - 7125-378-4261
- E VISE, MACHINIST'S - 5120-293-1439
- G STAND, PORTABLE ELECTRIC DRILL - 5130-263-8663

WE 38303

Figure 3. Roadside view.

By Order of the Secretary of the Army:

**W. C. WESTMORELAND,
*General United States Army,
Chief of Staff.***

Official:

**KENNETH G. WICKHAM
*Major General, United States Army,
The Adjutant General.***

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PAGE NO.

PARA-GRAPH

FIGURE NO.

TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

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 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 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

To change	To	Multiply by	To change	To	Multiply by
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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