*TB 9-4933-218-30

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

SHOP SET, ARTILLERY:

FIELD MAINTENANCE, SET N

(4933-754-0704) AND TOOL KIT, ARTILLERY

FIELD MAINTENANCE,

SUPPLEMENTAL NO. I. (4933-754-0659)

INSTALLATION IN ONE 2-1/2-TON 6x6

CARGO TRUCK, M35 OR M211

Headquarters, Department of the Army, Washington, D.C.
21 October 1970

This bulletin is current to 25 September 1970

1. General. *a.* The instructions contained in this bulletin are to be used as a guide for installation of Artillery Field Maintenance Shop Set N (4933-754-0704) and No. 1 Supplemental Artillery Field Maintenance Tool Kit (4933-754-0659) in one 2-1/2 ton 6 x 6 Cargo Truck, M35 or M211.

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 the shop set is included in SC 4933-95-CL-A12. A complete list of items included in the tool kit is included in SC 4933-95-CL-A10.

d. Personnel performing this installation should have a practical knowledge of electricity. Special care should be exercised to avoid damage to wire or electrical equipment.

e. Precautions should be observed when drilling holes through the body to insure the waterproof characteristics of the body are retained. All hardware extending through the floor of the truck 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 do not penetrate the frame or cross members of the vehicle.

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

2. Modification of Bows and Bow Sockets. *a.* Reverse the two side racks by placing the right side rack on the left of the truck and the left side rack on the right of the truck. The troop seats will then be on the outside of the truck body. This will provide the space required to install the work tables and will also provide more working space for personnel.

b. In order to provide sufficient headroom for personnel working in the cargo truck, it will be necessary to raise the bows and add an extension to paulin as follows:

*This bulletin supersedes TB ORD 444-13, 9 Oct 1957.

(1) Raise each bow 18 inches from the bottom of their sockets.

(2) Clamp (or hold) the bow in this position and drill a 7 / 16 inch hole through the bow and the bow socket.

(3) Secure the bow in this position by inserting chain leg assembly through the bow socket and bow.

(4) Attach the chain of the chain leg assembly to the truck rack to avoid loss.

(5) Secure the paulin extension to the existing truck cover.

c. Table 1 contains materials for extending the bows and the necessary paulin extension.

Tables 1. Meterials ***for Bow Extension***

FSN	Nomenclature	Use
4910-526-7689	CHAIN ASSEMBLY, SINGLE LEG : (10 required)	Bow and bow socket extension,
2540-449-7180	PAULIN, EXTENSION SET: truck side extension, set of **4.**	Attachment to truck canvas top.

3. Electrical Wiring and Equipment (Fig. 1).

a. The electrical wiring will be installed as follows :

(1) Install two electrical box connectors 5975-152-1142 in each of the three junction boxes 5975-194-8862. Secure the junction boxes to the under side and centered on the second, third, and fourth bows from the front with six No. 10-5/8-inch round-head wood screws 5305-014-9921.

(2) Install one electrical box connector 5975-. 152-1142 in junction box 5975-194-8878. Secure this junction box to the inner side of the top slat at the rear of the right side rack with two No. 10-5/8-inch round-head wood screws 5305-014-9921.

(3) Install two electrical box connectors 5975-152-1142 in the circuit breaker 5925-283-2217. Secure the circuit breaker to the underside and centered on the rear bow with four No. 10-5/8-inch round-head wood screws 5305-014-9921.

(4) Strip 5 inches of the top insulation from one end of a 24 foot length of power cable 6145-643-0012. Strip off 1/2-inch of insulation and install a terminal lug 5940-050-6214 on each conductor. Insert this end into the out-put end of the circuit breaker. From the green conductors to meet the ground terminal and connect the other two conductors to the out-put terminals. Thread the other end of the power cable through the three junction boxes mounted in the top and down to the junction box mounted on the top slat at the rear of the right side rack.

(5) Connect and install a lighting fixture 6210-299-699 in each of three top junction boxes. Connect and install the electrical receptacle connector 5935-577-0283 in the juction box mounted on the inner side of the top slat at the rear of the right side rack. Connect the lighting fixtures, receptacle, and joining cables in parallel with the white wire (neutral) being connected to the bright or shell connection of the lighting fixtures. Ground the green conductor under the head of one of the mounting screws in each junction box. Install junction box cover 5975-284-6284 to the electrical receptacle connector.

(6) Strip 5 inches of the top insulation from each end of a 38 foot length of power cable 6145-643-0012. Strip off 1/2-inch of insulation and install a terminal lug 5940-050-6214 on one end of each conductor. Insert this end of the power cable into the in-put end of the circuit breaker. Connect both green conductors to the ground terminal. Connect the other two conductors to the in-put terminals, maintaining color continuity so that neutral conductor is essentially continuous from the source of power. Strip off 1/2-inch of insulation from the green conductor on the other end of the power cable and attach a terminal lug 5940-050-6214. Cut the remaining conductors back to the required length and attach the electrical plug connector 5935-280-2383. The green wire is to be connected to the grounding terminal, the white or neutral wire is to be connected to the bright or identified neutral terminal and the black wire is to be connected to the remaining terminal. Coil the cable and secure the coil to the top of the rear bow with a strap fabricated with webbing 8305-263-2477 and a buckle 5340-850-8060. Secure the cables to the bows and side rack with eight retaining straps 5340-598-2476 and eight No. 10-5/8-inch round. head wood crews 5305-014-9921.

b. Figure 1 shows the installation of the electrical wiring and equipment in the cargo truck. Table 2 contains the materials required for wiring the truck.

Table 2. Electrical Wiring and Equipment.

FSN	Nomenclature	Qty	Application
5975-152-1142	BOX CONNECTOR, ELECTRICAL: S, ¾ cable, squeeze clamp type.	9	Junction boxes and circuit breaker.
6145-643-0012	CABLE, POWER, ELECTRICAL: 3 cond, 600 v, braid binder, syn-ru covered, No. 12 AWG.	62 ft	Junction boxes and circuit breaker.
5925-283-2217	CIRCUIT BREAKER: 50 amp frame, 2 pole, sgle-throw, 25 amp, 115-230 v.	1	Cargo truck.
5935-280-2383	CONNECTOR, PLUG, ELECTRICAL: parallel slots, 3-wire, grounding type, polarized, 15 amp, 125 v.	1	Power cable.
5935-577-0283	CONNECTOR, RECEPTACLE, ELECTRICAL: twin outlets, parallel slots, 3-wire, grounded type, polarized, 15 amp, 125 v.	1	Cargo truck.
5975-284-6284	COVER, JUNCTION BOX: for 4-inch square box, for duplex flush receptacle.	1	Electrical receptacle connector.
6210-299-6999	FIXTURE, LIGHTING: med screw base, 250 v, 250 w, pull switch type.	3	Cargo truck.
5975-194-8878	JUNCTION BOX: S, glvd, square, 4-inch size.	1	Electrical receptacle connector.
5975-194-8862	JUNCTION BOX: S, zn-fin., knockout type, one ½ knockout and four ¾ knockouts.	3	Lights.
5305-014-9921	SCREW, WOOD: rd-hd, No. 10, ⅝ inches lg.	20	Junction boxes, circuit breaker, retaining straps.
5340-598-2476	STRAP, RETAINING: open type, for 11/16 cable, w/ ¼ bolt holes.	8	Power cable.
5940-050-6214	TERMINAL LUG: solderless, rd-end tongue, No. 12-10 AWG, hole for No. 10 screws.	7	Power cable.

4. Shop Equipment. *a.* The floor plan for the cargo truck with each item in its designated position is shown in figure 2. Curbside and roadside views are shown in figure 3 and 4 respectively. The nitrogen tank support block, which is to be fabricated, is shown in figure 5.

b. Equipment to be mounted or to be secured for transit is listed in Table 3.

Table 3. Equipment to be Mounted and/or Secured for Transit.

FSN	Nomenclature	Qty	Fig. No.	Item ident.
5130-204-2718	DRILL, ELECTRIC, PORTABLE, WITH STAND:	1	2, 3	A
4910-543-7771	TABLE, WORK, AUTOMOTIVE MAINTENANCE:	1	2, 3	B
4910-543-7772	TABLE, WORK, AUTOMOTIVE MAINTENANCE:	1	2, 3	C
5120-293-1439	VISE, MACHINIST'S:	1	2, 3	D
(Fabricated)	NITROGEN TANK SUPPORT BLOCK:	2	2, 4, 5	E
6830-292-0131	NITROGEN, TECHNICAL:	1	2, 4	F
6115-889-1446	GENERATOR SET, GASOLINE ENGINE:	1	2, 4	G
4933-712-2378	PUMP KIT, HYDRAULIC OIL, GUN RECOIL:	2	4	H
4910-205-3046	TABLE, WORK, AUTOMOTIVE MAINTENANCE:	1	2, 4	I
5130-293-2488	GRINDER, ELECTRIC, PORTABLE, WITH STAND:	1	2, 4	J

c. Materials required to fabricate webbing straps and nitrogen tank support blocks are listed in Table 4.

Table 4. FabricatingMaterial

FSN	Material	Application
5340-850-8060	BUCKLE: strap, 1 in. webbing accommodated.	For application to webbing for securing straps.
NSNA	HARDWOOD: 4 x 4.	For fabricating nitrogen tank support block (E).
8305-263-2477	WEBBING, TEXTILE: cotton, 1 in. w, 550 lb breaking str.	For fabricating straps for securing generator set (G). nitrogen tank (F) and pump kit (H).

d. Hardware required for installation of equipment in shop van is listed in Table 5. Hardware items will be drawn from stock or through the managing activity having supply responsibility.

Table 5. Hardware.

FSN	Nomenclature	Qty	Application
5305-225-8504	BOLT, MACHINE: hex-hd, 5 / 2A x 2.	18	Work tables (B), (C), and (I).
5306-177-5677	BOLT, MACHINE : hex-hd, 7 / 3A	2	Nitrogen tank support block, lower (E).
5306-027-5803	BOLT, MACHINE: hex-hd, 7 / 3A x 8.	2	Nitrogen tank support block, upper (E).
5306-058-0518	BOLT, SQUARE NECK : (bolt) 5 / 16-18 x 3½.	4	Grinder (J).
5306-702-2821	BOLT, SQUARE NECK: (carriage bolt) ½-13 x 3½.	4	Vise (D).
5340-616-4660	LOOP, STRAP FASTENER: for 1 in. webbing.	4	Nitrogen tank support block (E).
5310-880-7744	NUT, PLAIN, HEXAGON : 5/ 16-18 2B.	22	Work tables (B), (C), and (I), grinder (J).
5310-975-2075	NUT, PLAIN, HEXAGON : ⅜-24UNF-2B.	3	Drill and stand (A).
5310-741-5305	NUT, PLAIN, HEXAGON: 7 / 3B.	4	Nitrogen tank support block (E).
5310-834-8732	NUT, PLAIN, HEXAGON: ½-13UNC-2B.	4	Vise (D).
5305-269-3244	SCREW, CAP, HEXAGON HEAD: ⅜-24UNF-2A x 2½.	3	Drill and stand (A).
5305-013-0384	SCREW, WOOD: rd-hd, no. 10, 2½ lg.	8	Nitrogen tank support block (E) (strap fastener loops).
5310-273-7729	WASHER, FLAT: .234 for no. 10 screw.	8	Nitrogen tank support block (E) (strap fastener loops).
5310-081-4219	WASHER, FLAT: 11 / 32 id, for 5 / 16 bolt size.	22	Work tables (B), (C) and (I), grinder (J).
5310-167-0804	WASHER, FLAT: 25 / 64 id, for bolt bolt size.	6	Drill and stand (A).
5310-760-2021	WASHER, FLAT: ½ id, for 7 / 16 bolt size.	4	Nitrogen tank support blocks (E).
5310-809-5998	WASHER, FLAT: 17 / 32 id, for ½ bolt size.	4	Vise (D).
5310-209-0061	WASHER, FLAT: rect, 7 / 16 in. hole dia.	18	Work tables (B), (C), and (I).
5310-737-4728	WASHER, LOCK: int-ext-teeth, dished, ⅜ 3 screw size.	3	Drill and stand (A).
5310-407-9566	WASHER, LOCK: split, 5 / 16 bolt size.	22	Work tables (B), (C), and (I), grinder (J).
5310-905-5454	WASHER, LOCK: split, 7 / 16 bolt size.	4	Nitrogen tank support blocks (E).
5310-584-5272	WASHER, LOCK : split, bolt size.	4	Vise (D).

e. Unused space in the cargo truck may be utilized for transporting and storing other tools, etc.

f. Ground all electrically powered tools to the chassis of the cargo truck as a safety precaution against electrical shock to the operator.

g. One ground rod with cable assembly is included in the shop set for each cargo truck. Drive the ground rod into the ground and secure the cable assembly to the chassis of the truck each time the shop set is placed in operation.

5. Installation of the Shop Equipment. a. Work Tables (Figs. 2, 3, and 4).

(1) There are three work tables 4910-543-7771, 4910-543-7772, and 4910-205-3046 to be installed in the cargo truck. The tables, in the sequence listed above, are designated B, C, and I.

(2) Place work table (B) flush against the front wall and right side of truck as shown in figure 2. Locate table (I) on the left side of the truck in a similar manner. Place table (C) toward the rear of the truck, flush against the right side, and abutted against table (B) as shown in figures 2 and 3. Mark and drill eighteen 11/32-inch holes through the floor of the truck aligned with the mounting holes

in the table legs. Secure each table with six 5 / 16-18 x 2 - inch hexagon-head machine bolts 5305-225-8504, six 7/16-inch hole diameter rectangular flat washers 5310-209-0061 (place on underside of floor), six 11/32-inch inside diameter flat washers 5310-081-4219, six 5/16-inch split lockwasher, 5310-407-9566, and six 5 / 16-18 hexagon plain nuts 5310-880-7744

6. Portable Electric Drill with Stand (Figs. 2 and 3). Place the drill with stand 5130-204-2718 (designated A) on work table (B), and position the base of the stand 10 inches from the left end of the table top and 1 inch from the front edge as shown in figure 2. Mark and drill three 7/16-inch holes through the table top aligned with the mounting holes in the base of the stand. Secure the drill and stand with three 3/8-24 x 2-1/2-inch hexagon-head cap screw 5305-269-3244, six 25/64-inch inside diameter flat washers 5310-167-0804, three 3/8-inch split lockwashers 5310-737-4728, and three 3/8-24 hexagon plain nuts 5310-975-2075.

c. Machinist's Vise (Figs. 2 and 3). Place the machinist vise 5120-293-1439 (designated D) on work table (C), and position the base of the stand 4 inches from the right end of the table top and flush with front edge as shown in figure 2. Mark and drill four 9/16-inch holes in the base of the vise. Secure the vise with four 1/2-13 x 3 1/2-inch square neck bolts 5306-702-2821, four 17/32-inch inside diameter flat washers 5310-809-5998, four 1/2-inch split lockwashers 5310-584-5272, and four 1/2-13 hexagon plain nuts 5310-834-8732.

d. Nitrogen Tank Support Block (Figs. 2, 4 and 5).

(1) Fabricate two support blocks as shown in figure 5. The blocks are to be long enough to span two bow stake tubes and are to be placed on the left side of the truck at the rear as shown in figures 2 and 4.

(2) One block is to span the rear two bow stake tubes, even with the top side rack slat. Mark and drill, at each end of block, 1/2-inch holes through block, bow stakes and bow stake tubes. Secure block with two 7/16-20 x 8-inch hexagon-head machine bolts 5306-027-5803, two 1/2-inch inside diameter flat washers 5310-760-2021, two 7/16-inch split lockwashers 5310-905-5454, and two 7/16-20 hexagon plain nuts 5310-741-5305.

(3) The other block is to be placed midway between the floor and the top of the permanent side. Mark and drill, at each end of block, 1/2-inch holes through block and side of truck. Secure block with two 7/16-20 x 5-1/2-inch hexagon-head machine bolts 5306-177-5677, two 1/2-inch inside diameter flat washers 5310-760-2021, two 7/16-inch split lockwashers 5310-905-5454, and two 7/16-20 hexagon plain nuts 5310-741-5305.

(4) Secure nitrogen tank (designated F) to blocks with webbing straps. Fabricate straps using webbing 8305-263-2477 and buckles 5340-850-8060. Position and secure strap fastener loops 5340-616-4660 at opposite ends of each block with two No. 10-2-1/2 inch round head wood screws 5305-013-0384 and two .234 inch inside diameter flat washers 5310-273-7729. Loop webbing straps through fastener loops and buckle as required to hold tank firmly in place as shown in figure 4.

e. Generator Set (Figs. 2 and 4). Place the generator set 6115-889-1446 (Designated G) on the floor of the truck, two inches from the left side of truck and flush against table (I) as shown in figures 2 and 4. Secure the generator to the table legs with webbing straps which are to be fabricated using webbing 8305-263-2477 and a buckle 5340-850-8060.

CAUTION: The generator set is secured in the cargo truck for transportation purposes only and is to be removed from the truck before operation.

f. Pump Kits (Fig. 4). Place the two pump kits 4933-712-2378 (designated H) on the lower shelf of work table (C) as shown in figure 3. Secure the kits to the shelves with fabricated webbing straps as required.

g. Portable Electrical Grinder (Figs. 2 and 4). Place the portable electrical grinder 5130-293-2488 (designated J) on work table (I) and position the base of the grinder 10 inches from the right end and 2 inches from the front edge of the table top as shown in figure 2. Mark and drill four 11/32-inch holes through the table top aligned with mounting holes in the base of the grinder. Secure the grinder with four 5/16-18 x 2 1/2-inch square neck bolts 5306-058-0518, four 11/32-inch inside diameter flat washers 5310-081-4219, four 5/16-inch split lockwashers 5310-407-9566, and four 5/16-18 hexagon plain nuts 5310-880-7744.

6. Reporting of Equipment Publications Improvements. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications). Forward completed forms direct to: Commanding General, Headquarters, U. S. Army Weapons Command, ATTN: AMSWE-SMM-P, Rock Island, IL 61201.

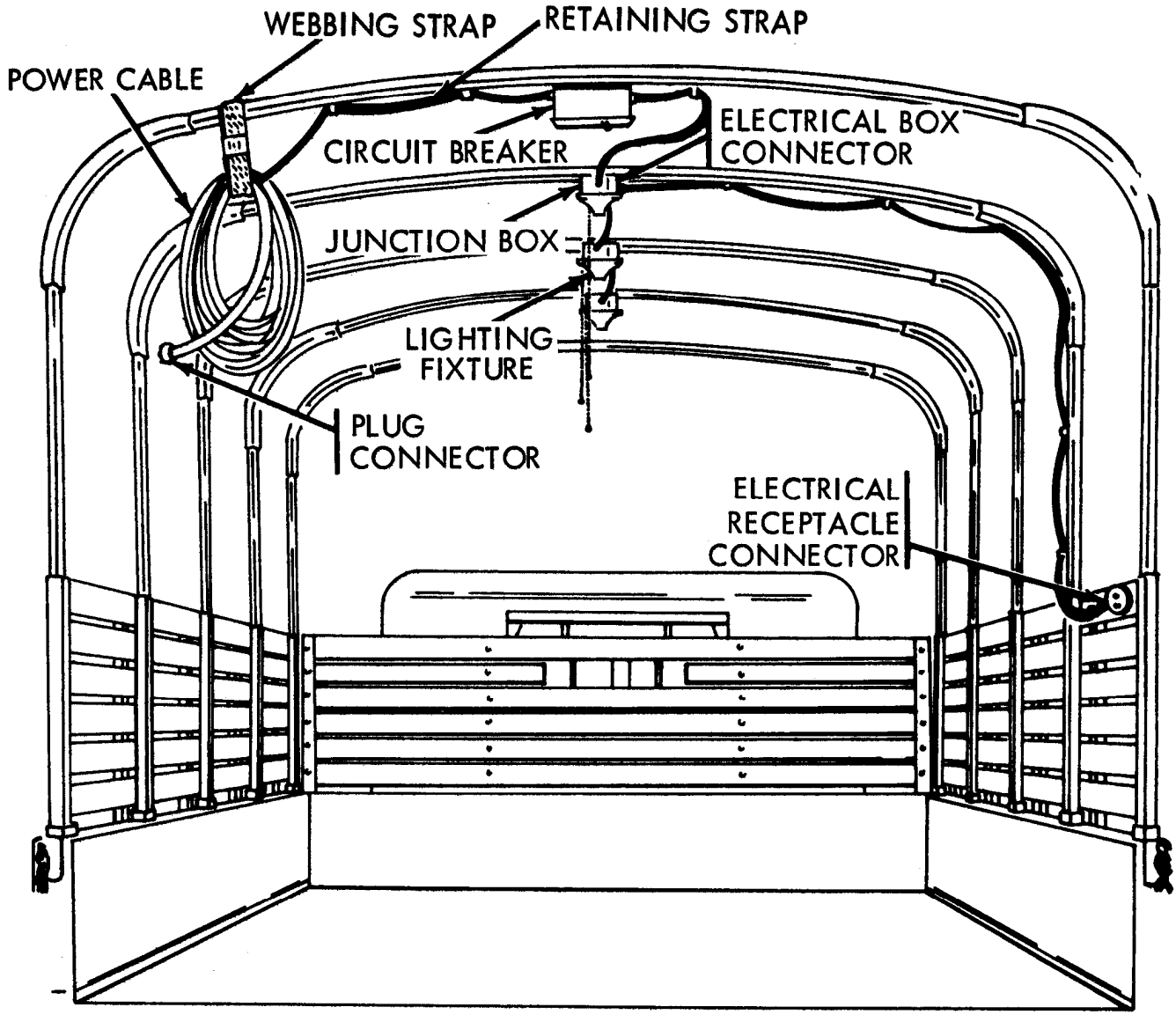
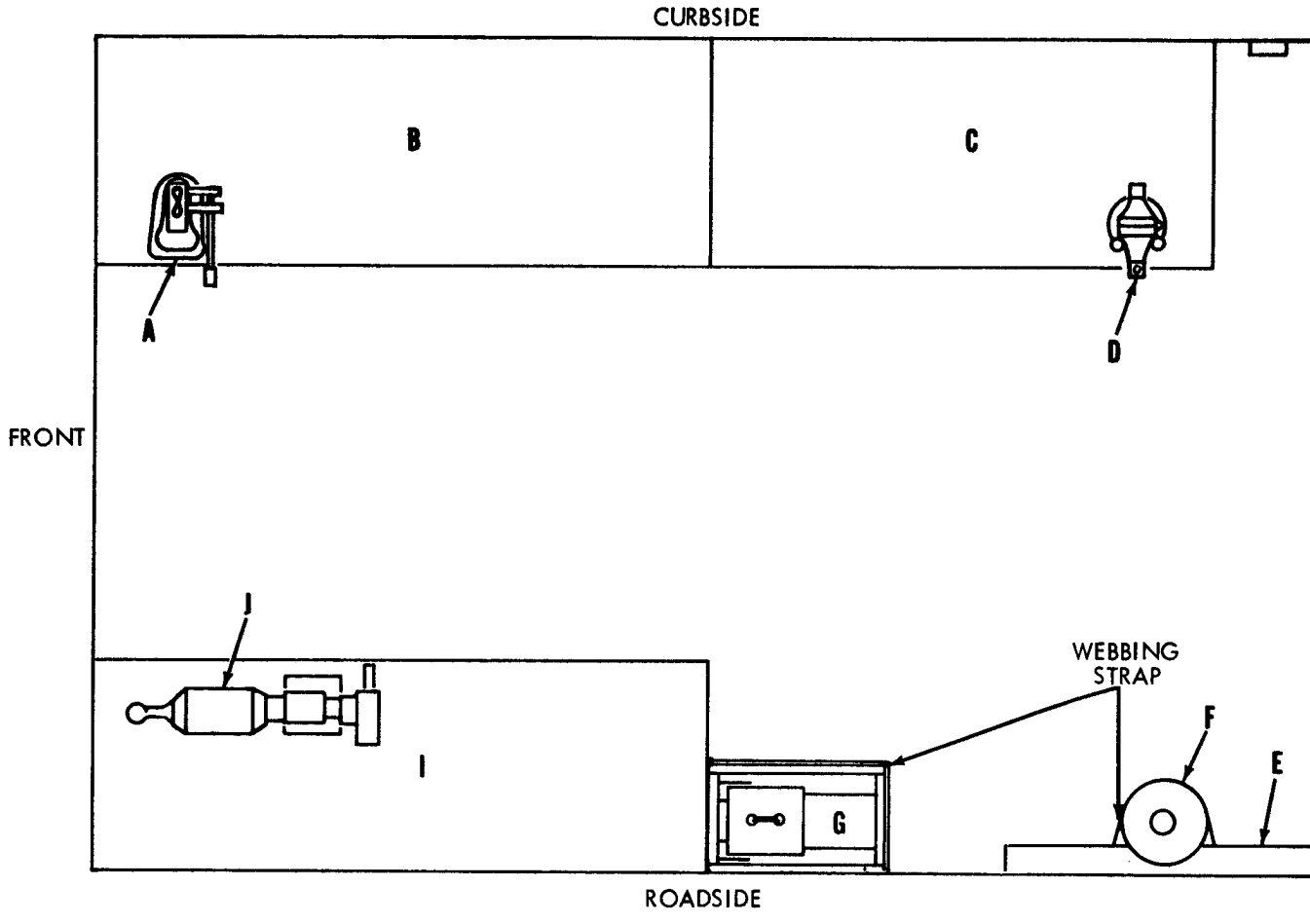


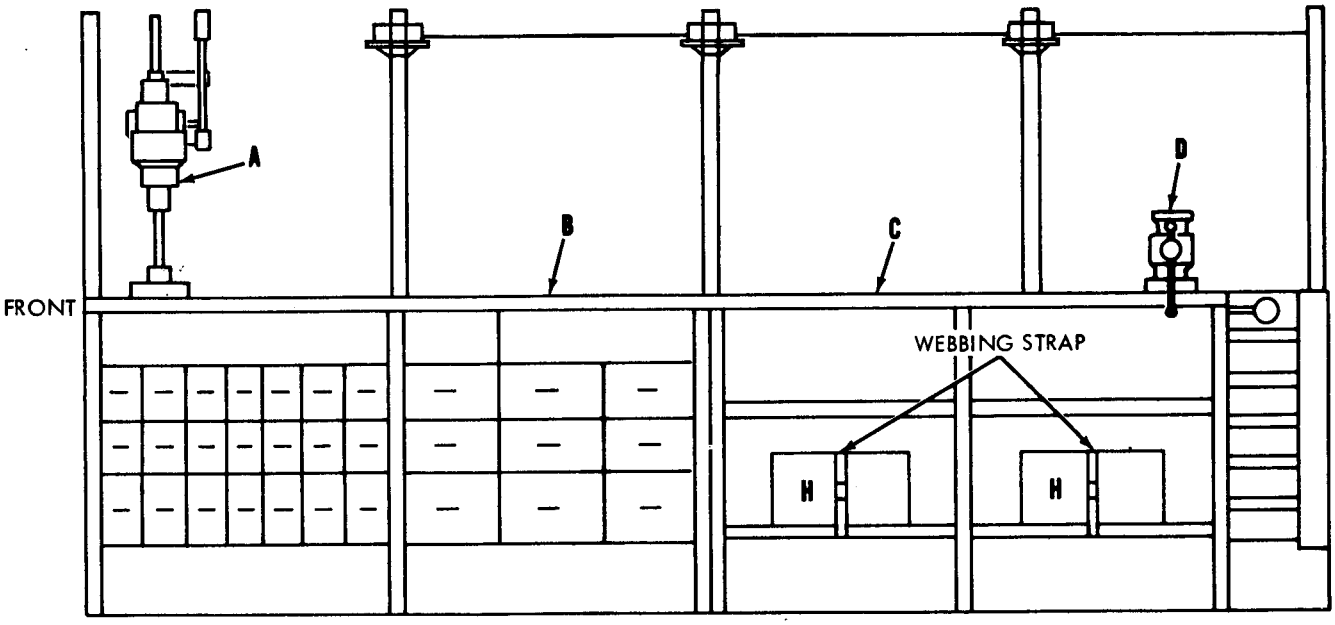
Figure 1. Electrical wiring and equipment.



A - DRILL, ELECTRIC, PORTABLE WITH STAND - 5130-204-2718
B - TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-543-7771
C - TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-543-7772
D - VISE, MACHINISTS - 5120-293-1439
E - NITROGEN TANK SUPPORT BLOCK (SEE FIGURE 5)
F - NITROGEN, TECHNICAL - 6830-292-0131
G - GENERATOR SET, GASOLINE ENGINE - 6115-889-1446
I - TABLE, WORK, AUTOMOTIVE MAINTENANCE - 4910-205-3046
J - GRINDER, ELECTRIC, PORTABLE, WITH STAND - 5130-293-2488

WE 38427

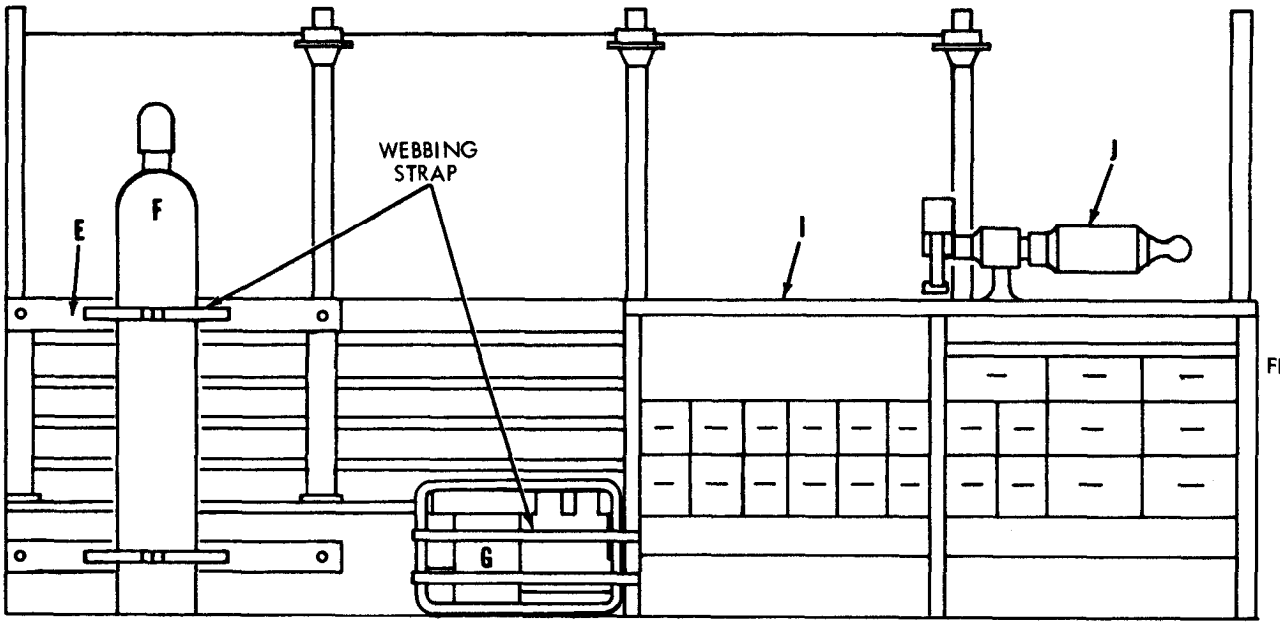
Figure 2. Floor plan.



A - DRILL, ELECTRIC, PORTABLE, WITH STAND
B - TABLE, WORK, AUTOMOTIVE MAINTENANCE
C - TABLE, WORK, AUTOMOTIVE MAINTENANCE
D - VISE, MACHINISTS
H - PUMP KIT, HYDRAULIC OIL, GUN RECOIL

WE 38428

Figure 3. Curbside view.



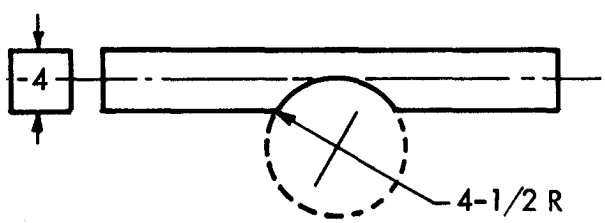
ROADSIDE VIEW

E - NITROGEN TANK SUPPORT BLOCK (SEE FIGURE 5)
F - NITROGEN, TECHNICAL
G - GENERATOR SET, GASOLINE ENGINE
I - TABLE, WORK, AUTOMOTIVE MAINTENANCE
J - GRINDER, ELECTRIC, PORTABLE, WITH STAND

WE 38429

Figure 4. Roadside view.

NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES.



MATERIAL - 4 X 4 HARD WOOD

WE 38451

Figure 5. Nitrogen tank support block.

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.

Distribution;

To be distributed in accordance with DA Form 12-21 (qty rqr block no. 143) requirements for FSC Group 4933-CL.

*U.S. Government Printing OFFICE : 1995 0- 388-421/40009

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

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

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER	SIGN HERE

TEAR ALONG PERFORATED LINE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

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 decigram = .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

PIN: 009090-000