

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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DATED 28 OCTOBER 1963
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SHOP EQUIPMENT, WELDING

FIELD MAINTENANCE

(NSN 3470-00-357-7268)

INSTALLATION IN ONE M35A2 CARGO TRUCK

AND

ONE M105A2 CARGO TRAILER

Change
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 12 May 1988

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FIELD MAINTENANCE
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AND
ONE M105A2 CARGO TRAILER

TB 9-3470-209-30, 10 December 1985, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar to the left of the changed material. Changed illustrations are indicated by a miniature pointing hand highlighting the general area of the change.

Remove Pages

25 thru 30
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33 and 34

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HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, DC,
 10 December 1985

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SHOP EQUIPMENT, WELDING

FIELD MAINTENANCE

(NSN 3470-00-357-7268)

INSTALLATION IN ONE M35A2 CARGO TRUCK

AND

ONE M105A2 CARGO TRUCK

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1. General

a. Instructions contained in this bulletin are to be used as a guide for installation of welding field maintenance shop equipment (NSN 3470-00-357-7268) in one M35A2 cargo truck, unit 1 (fig. 1), and one M105A2 cargo trailer, unit 2 (fig. 2).

b. Slight variations to installation instructions may be made at the discretion of the officer in charge.

c. Complete lists of items contained in this shop are found in SC 3470-95-CL-A08 .

d. Personnel performing this installation should have a practical knowledge of electricity.

e. Items not mentioned in this bulletin that may be components of this shop may be stowed in cabinets and drawers or secured in such a manner as to avoid damage in transit.

f. All dimensions, fastener sizes, and hardware sizes are in inches.

g. When entering shop, curbside is at right and roadside is at left.

2. Warnings and Cautions

WARNING

All electrically-powered tools and equipment must be grounded prior to use.

Extinguish all smoking materials and do not permit open flame or sparks in the vicinity of flammable gases or liquids.

Table 1. Mounting Hardware

MS/part no.	Size and description	Qty	Application
AN970-5	5/16-in. Flat Washer	3	Pipe vise
AN970-8	1/2-in. Flat Washer	4	Machinist's vise
MS3367-3-0	12.00-in. Tiedown Strap	28	Power cable assemblies

WARNING

Drill bits can fracture or break during use. Wear safety glasses at all times when drilling holes.

CAUTION

Special care should be exercised to avoid damage to electrical connectors, wiring, or electrical equipment.

To preserve waterproof characteristics, precautions should be taken not to puncture the outer skin when drilling holes into the walls or floor of the shop . Coat underside of vehicle body with coating compound (UNDERCOATING TT-C-520, NSN 8030-00-221-1834) where mounting hardware projects through floor.

3. Location of Equipment

a. Locations of equipment installed or stowed in units 1 and 2 are shown in figures 1 thru 13.

(1) Refer to table 1 for hardware required for installation.

(2) Refer to table 2 for components to be mounted.

(3) Refer to table 3 for electrical components to be mounted.

b. Refer to table 4 for standard conversion chart.

3. Location of Equipment--Continued

Table 1. Mounting Hardware--Continued

MS/part no.	Size and description	Qty	Application
MS27130-A27	#10-24 UNC Blind Rivet Nut	30	Strap loops to wall
MS27183-11	5/16-in. Flat Washer	20	Work tables, pipe vise, electric portable band-saw stand, portable electric grinder, hand lever throatless shearing machine
MS27183-13	3/8-in. Flat Washer	10	Welding table, arc welding machine, welding machine parts chest
MS27183-17	1/2-in. Flat Washer	10	Blacksmith's anvil, machinist's vises
MS27183-42	7/32-in. Flat Washer	24	Strap loops to wood slats
MS35190-275	#10-24 UNC-2A Counter-sunk Head Machine Screw x 1.00 L	36	Strap loops
MS35190-276	#10-24 UNC-2A Counter-sunk Head Machine Screw x 1-1/4 L	24	Strap loops, wooden slats
MS35338-43	#10 LockWasher	30	Strap loops
MS35338-45	5/16-in. Lockwasher	20	Work tables, pipe vise, electric portable band-saw stand, portable electric grinder, hand lever throatless shearing machine
MS35338-46	3/8-in. Lockwasher	10	Arc welding machine, welding table, welding machine parts chest
MS35338-47	7/16-in. Lockwasher	10	Truck bows
MS35338-48	1/2-in. Lockwasher	10	Blacksmith's anvil, machinist's vises

3. Location of Equipment--Continued

Table 1. Mounting Hardware--Continued

MS/part no.	Size and description	Qty	Application
MS35649-202	#10-24 UNC-2B Hex Nut	30	Strap loops
MS51861-49	#10 Thread Forming Screw x 1.00 L	20	Lamp holder, duplex junction boxes, switch box
MS51939-3	Strap Loop	30	Stewed item retention
MS51967-5	5/16-18 UNC-2B Hex Nut	20	Work tables, pipe vise, electric portable bandsaw stand, portable electric grinder, hand lever throatless shearing machine
MS51967-8	3/8-16 UNC-2B Hex Nut	10	Welding table, arc welding machine, welding machine parts chest
MS51967-11	7/16-14 UNC-2B Hex Nut	10	Truck bows
MS51967-14	1/2-13 UNC-2B Hex Nut	10	Blacksmith's anvil, machinist's vises
MS90725-34	5/16-18 UNC-2A Hex Head Capscrew x 1.00 L	6	Work tables
MS90725-39	5/16-18 UNC-2A Hex Head Capscrew x 1-3/4 L	3	Pipe vise
MS90725-41	5/16-18 UNC-2A Hex Head Capscrew x 2-1/4 L	11	Hand lever throatless shearing machine, portable electric grinder, electric portable bandsaw stand
MS90725-63	3/8-16 UNC-2A Hex Head Capscrew x 1-3/8 L	4	Welding table
MS90725-65	3/8-16 UNC-2A Hex Head Capscrew x 1-3/4 L	2	Welding machine parts chest

3. Location of Equipment--Continued

Table 1. Mounting Hardware--Continued

MS/part no.	Size and description	Qty	Application
MS90725-70	3/8-16 UNC-2A Hex Head Capscrew x 3.00 L	4	Arc welding machine
MS90725-88	7/16-14 UNC-2A Hex Head Capscrew x 1-3/8 L	10	Truck bows
MS90725-115	1/2-13 UNC-2A Hex Head Capscrew x 2.00 L	4	Machinist's vise, unit 2
MS90725-120	1/2-13 UNC-2A Hex Head Capscrew x 3-1/4 L	6	Blacksmith's anvil; machinist's vise, unit 1
7550588-3	48.00-in. Retaining Strap	1	Power-driven portable band saw case
7550588-4	36.00-in. Retaining Strap	6	Oxygen and argon cylinders, welding electrode moisture stabilizer, hand hydraulic jack kit
7550588-5	24.00-in. Retaining Strap	1	Portable electric disk sander
7550588-6	12.00-in. Retaining Strap	6	Two-wheeled hand truck, welding screen, radiator and fuel tank testing tank
7550588-7	92.00-in. Retaining Strap	13	Equipment stowed on shelves, oxygen and argon cylinders
7550588-9	66.00-in. Retaining Strap	6	Acetylene cylinders

3. Location of Equipment--Continued

Table 2. Components to be Mounted

NSN	Qty	Description	Figure no.
5120-00-180-2885	1	ANVIL, BLACKSMITH'S	2-3
6150-00-682-3460	4	CABLE ASSEMBLY, POWER, ELECTRICAL: 50 ft, 3 condct	5
8115-00-679-5594	2	BOX, SMALL PARTS	2-3-5
8120-00-268-3360	4	CYLINDER, COMPRESSED GAS: acetylene	2-6-8-11
8120-00-357-7992	4	CYLINDER, COMPRESSED GAS: 9 in. dia x 51 in. oa lg, argon	2-8-13-17
8120-00-151-9758	4	CYLINDER, COMPRESSED GAS: oxygen	2-6-8-13
5130-00-889-9004	1	DRI LL, ELECTRIC, PORTABLE	5
5130-00-293-2488	1	GRINDER, ELECTRIC, PORTABLE	2
4240-00-540-0623	2	HELMET, WELDER'S	5
5120-00-595-8387	1	JACK KIT, HYDRAULIC, HAND: 20-ton cap.	8-9-13
2540-00-641-0187	1	LADDER, VEHICLE BOARDING	2
6230-00-729-9259	2	LIGHT, EXTENSION	5
3439-00-440-0090	1	MOI STURE STABI LI ZER, WELDING ELECTRODE	2
5130-00-857-8526	1	SANDER, DISK, ELECTRIC, PORTABLE	5
5130-00-903-2510	1	SAW, BAND, PORTABLE, POWER-DRIVEN	2-3
5130-00-720-0654	1	SAW, RECI PROCATING, PORTABLE, ELECTRIC	5
3438-00-198-8348	1	SCREEN, WELDING	8-13
3445-00-244-4527	1	SHEARING MACHINE, THROATLESS, HAND LEVER	2
5130-00-134-4535	1	STAND, PORTABLE BANDSAW, ELECTRIC	2
3436-00-847-3772	1	TABLE, WELDING	2-3

3. Location of Equipment--Continued

Table 2. Components to be Mounted--Continued

NSN	Qty	Description	Figure no.
4910-00-543-7772	1	TABLE, WORK, AUTOMOTIVE MAINTENANCE: 60 in. lg w/shelves	2-3-5
4910-00-543-7771	1	TABLE, WORK, AUTOMOTIVE MAINTENANCE: 72 in. lg w/drawers	2-3-5
4910-00-019-3048	1	TANK, TESTING, RADIATOR AND FUEL TANK	8-13
2540-00-449-7180	1	TARPAULIN EXTENSION SET	5
5180-00-357-7731	1	TOOL KIT, BODY AND FENDER REPAIR	5
3433-00-357-6311	2	TORCH OUTFIT, CUTTING AND WELDING	5
3433-00-880-0512	1	TORCH OUTFIT, METALLIZING AND WELDING	5
3920-00-272-7732	1	TRUCK, HAND, TWO-WHEELED	2-6
5120-00-293-1439	2	VI SE, MACHI NI ST' S: 4-in. jaw	2-8-9
5120-00-180-0670	1	VI SE, PI PE: 4-in. cap.	8-9
3431-00-903-5647	1	WELDI NG MACHI NE, ARC	8-9-13
3431-00-691-1415	1	TORCH OUTFIT, WELDI NG	5

Table 3. Electrical Components to be Mounted

Part no. or speci fi cati on	Qty	Description	Figure no.
APPLETON 15233	16	BOX CONNECTOR: type I, class 4, style M (W-F-406)	15-17 thru 21
4910-00-800-1405	1	CABLE ASSEMBLY, ELECTRICAL POWER (MIL-C-45820)	15

3. Location of Equipment--Continued

Table 3. Electrical Components to be Mounted--Continued

Part no. or specification	Qty	Description	Figure no.
11021163	1	CABLE ASSEMBLY, POWER consisting of one each of the following: 44-in. flex. cord (J-C-580) connector (W-C-596/92-1) box connector (W-F-406)	14-16 thru 18
11021166	1	CABLE ASSEMBLY, POWER consisting of one each of the following: 37.50-in. flex. cord (J-C-580) connector (W-C-596/92-1) box connector (W-F-406)	14-15- 17-21
11021164	1	CABLE ASSEMBLY, POWER consisting of one each of the following: 44-in. flex. cord (J-C-580) plug (W-C-596/91-1) box connector (W-F-406)	14-16- 17-19
11021165	1	CABLE ASSEMBLY, POWER consisting of one each of the following: 37.50-in. flex. cord (J-C-580) plug (W-C-596/91-1) box connector (W-F-406)	14-15- 17-20
GE-GLD0533	2	CONNECTOR, CABLE OUTLET: 2-pole, 3-wire, 30 amp, grounding, 125 V, 50/60 Hz (W-C-596/92-1)	18-21
GE-GLD0531	2	CONNECTOR, PLUG: straight, grounding, 2-pole, 3-wire, 30 amp, 125 V, 50/60 Hz (W-C-596/91-1)	19-20
6145-00-295-0855	42 ft	CABLE, POWER, ELECTRICAL: type S06CF3/10SRNJG (J-C-580)	14 thru 21
APPLETON 2510	4	COVER, JUNCTION BOX, DUPLEX: type VIII, size F, style 59 (W-J-800)	15-16
5975-00-281-0090	4	JUNCTION BOX, DUPLEX: type II (W-J-800)	14 thru 17
APPLETON40-3/4	4	JUNCTION BOX, LAMPHOLDER: type I (W-J-800)	14 thru 17
GE-5740-7	4	LAMPHOLDER (GENERAL ELECTRIC)	15-16

3. Location of Equipment--Continued

Table 3. Electrical Components to be Mounted--Continued

Part no. or specification	Qty	Description	Figure no.
5935-01-058-9269	4	RECEPTACLE, DUPLEX, GROUNDED: 2-pole, 3-wire (W-C-596/40)	15-16
SQUARE D D221NRB	1	SWITCH BOX (ENCLOSED): surface mtd, type NDS, class 2, design 2SN BOX, 120/240 v ac, 30 amp (W-S-865)	14-15-17
MS20659-141	27	TERMINAL LUG	17

4. Installation

NOTE

Blind hand riveter (5120-00-679-6523) is used for installation of blind rivet nuts in unit walls. Install blind rivet nuts in accordance with the manual supplied with the hand riveter. Position floor-mounted equipment, shown in figures 2 and 8. Use equipment mounting holes as template for location of drilled floor mounting holes in accordance with figures 3 and 9.

a. Mark and drill thirty 0.25-in. diameter holes for blind rivet nuts in the metal walls of units 1 and 2 in accordance with figures 4, 10, and 12. Install thirty #10 blind rivet nuts (MS27130-A27) in the holes.

b. Install fifteen strap loops (MS51939-3), using thirty #10 x 1-in. countersunk head machine screws (MS35190-275), in the blind rivet nuts in units 1 and 2 in accordance with figures 4, 10, and 12.

c. Drill two 0.22-in. diameter holes in floor in accordance with dimensions shown in figure 3, unit 1.

Secure one strap loop (MS51939-3) to truck floor, using two #10 x 1-in. countersunk head machine screws (MS35190-275), two #10 lockwashers (MS35338-43) under floor, and two #10 hex nuts (MS35649-202).

d. Drill four 0.22-in. diameter holes through wooden slats of truck in accordance with dimensions shown in figure 4, unit 1. Secure two strap loops (MS51939-3) to wooden slats, using four #10 x 1-1/4-in. countersunk head machine screws (MS35190-276), four 7/32-in. flat washers (MS27183-42), four #10 lockwashers (MS35338-43), and four #10 hex nuts (MS35649-202).

e. Drill twenty 0.22-in. diameter holes through trailer slats in accordance with dimensions shown in figures 10 and 12, unit 2. Secure ten strap loops (MS51939-3) to trailer slats, using twenty #10 x 1-1/4-in. countersunk head machine screws (MS35190-276), twenty 7/32-in. flat washers (MS27183-42), twenty #10 lockwashers (MS35338-43), and twenty #10 hex nuts (MS35649-202).

f. Mark and drill four 0.22-in. diameter holes through trailer floor in accordance with dimensions shown in figure 9, unit 2. Secure two strap loops (MS51939-3), using four #10 x 1-

4. Installation--Continued

in. countersunk head machine screws (MS35190-275), four #10 lockwashers (MS35338-43), and four #10 hex nuts (MS35649-202).

Follow steps (1) thru (18) below for equipment installation in unit 1. Refer to figures 2 and 3 for component locations and dimensions.

(1) Position 60-in. and 72-in. work tables (4910-00-543-7772 and 4910-00-543-7771) in accordance with figures 2 and 3. Mark and drill six 0.39-in. diameter holes through work table legs and truck floor on aisle side only in accordance with figure 3. Secure work tables to floor of truck using six 5/16- x 1-in. hex head capscrews (MS90725-34) and six 5/16-in. flat washers (MS27183-11); under truck floor use six 5/16-in. lockwashers (MS35338-45) and six 5/16-in. hex nuts (MS51967-5).

(2) Position welding table (3436-00-847-3772) in accordance with figures 2 and 3. Drill four 0.39-in. diameter holes through leg bases and truck floor. Secure welding table to floor, using four 3/8- x 1-3/8-in. hex head capscrews (MS90725-63) and four 3/8-in. flat washers (MS27183-13); under truck floor use four 3/8-in. lockwashers (MS35338-46) and four 3/8-in. hex nuts (MS51967-8).

(3) Position small parts box (8115-00-679-5594) in accordance with figures 2 and 3. Drill two 0.39-in. diameter holes through bottom center line of small parts box and floor. Secure small parts box to floor, using two 3/8- x 1-3/4-in. hex head capscrews (MS90725-65) and two 3/8-in. flat washers (MS90725-13; under truck floor, use two 3/8-in. lockwashers (MS35338-46) and two 3/8-in. hex nuts (MS51967-8).

(4) Secure case for power-driven portable band saw (5130-00-903-2510) to

floor (fig. 2), using a 48-in. retaining strap (7550588-3) in accordance with figure 6.

(5) Secure welding electrode moisture stabilizer (3439-00-440-0090) to wall (fig. 2), using a 36-in. retaining strap (7550588-4) in accordance with figure 6.

(6) Secure two oxygen cylinders (8120-00-151-9758) to wall of truck (fig. 2), using two 92-in. retaining straps (7550588-7) in accordance with figure 6.

(7) Position two-wheeled hand truck (3920-00-272-7732), containing one acetylene cylinder (8120-00-268-3360) and one oxygen cylinder (8120-00-151-9758) in accordance with figure 2. Secure tie-wheeled hand truck to wooden truck slats, using two 12-in. retaining straps (7550588-6) (fig. 6).

(8) Position blacksmith's anvil (5120-00-180-2885) in accordance with figure 2. Using base as template, mark and drill two 0.50-in. diameter holes through floor (fig. 3). Secure blacksmith's anvil to floor, using two 1/2- x 3-1/4-in. hex head capscrews (MS90725-120) and two 1/2-in. flat washers (MS27183-17); under truck floor use two 1/2-in. lockwashers (MS35338-48) and two 1/2-in. hex nuts (MS51967-14).

(9) Position electric portable bandsaw stand (5130-00-134-4535) on tabletop (60-in. work table) in accordance with figure 2. Using base as template, mark and drill three 0.33-in. diameter holes through tabletop. Secure electric portable bandsaw stand to tabletop, using three 5/16- x 2-1/4-in. hex head capscrews (MS90725-41), three 5/16-in. flat washers (MS27183-11), three 5/16-in. lockwashers (MS35338-45), and three 5/16-in. hex nuts (MS51967-5).

(10) Position portable electric grinder (5130-00-293-2488) on tabletop (72-in. work table) in accordance with

4. Installation--Continued

figure 2. Using base as template, mark and drill four 0.33-in. diameter holes through tabletop. Secure portable electric grinder to table top, using four 5/16- x 2-1/4-in. hex head capscrews (MS90725-41), four 5/16-in. flat washers (MS27183-11), four 5/16-in. lockwashers (MS35338-45), and four 5/16-in. hex nuts (MS51967-5).

(11) Position machinist's vise (5120-00-293-1439) on table top (72-in. work table) in accordance with figure 2. Using base as template, mark and drill four 0.50-in. diameter holes through tabletop. Secure machinist's vise to tabletop, using four 1/2- x 3-1/4 in. hex head capscrews (MS90725-120), four 1/2-in. flat washers (MS27183-17), four 1/2-in. lockwashers (MS35338-48), and four 1/2-in. hex nuts (MS51967-14).

(12) Position hand lever throatless shearing machine (3445-00-244-4527) on tabletop (72-in. work table) in accordance with figure 2. Using base as template, mark and drill four 0.33-in. diameter holes through tabletop. Secure hand lever throatless shearing machine to tabletop, using four 5/16- x 2-1/4-in. hex head capscrews (MS90725-41), four 5/16-in. flat washers (MS27183-11), four 5/16-in. lockwashers (MS35338-45), and four 5/16-in. hex nuts (MS51967-5).

(13) Stow welding torch outfit (3431-00-691-1415) and small parts box (8115-00-679-5594) on upper shelf of 60-in. work table and secure with three 92-in. retaining straps (7550588-7) (fig. 5).

(14) Stow portable electric drill (5130-00-889-9004) and tarpaulin extension set (2540-00-449-7180) on upper shelf of 60-in. work table and stow two extension lights (6230-00-729-9259), and electric portable reciprocating saw (5130-00-720-0654) on upper shelf of 72-in. work (table (fig. 5).

(15) Stow portable electric disk sander (5130-00-857-8526) on truck slats and secure with a 24-in. retaining strap (7550588-5) (fig. 5).

(16) Stow two welder's helmets (4240-00-540-0623), four electrical power cable assemblies (6150-00-682-3460), metallizing and welding torch outfit (3433-00-880-0512), body and fender repair tool kit (5180-00-357-7731), and two cutting and welding torch outfits (3433-00-357-6311) on bottom shelf of 60-in. work table and secure with six 92-in. retaining straps (7550588-7) (fig. 5).

(17) Vehicle boarding ladder (2540-00-641-0187) is stowed in M35A2 cargo truck frame.

(18) Position three argon cylinders (8120-00-357-7992) against front wall in accordance with figures 2 and 5. Secure argon cylinders to front truck slats using two 92-in. retaining straps (7550588-7).

h. Follow steps (1) thru (9) below for equipment installation in unit 2. Refer to figures 8 and 9 for component locations and dimensions.

(1) Position arc welding machine (3431-00-903-5647) in accordance with figures 8 and 13. Mark and drill four 0.39-in. diameter holes through bottom frame of arc welding machine and floor in accordance with figure 9. Secure arc welding machine to floor, using four 3/8- x 3-in. hex head capscrews (MS90725-70) and four 3/8-in. flat washers (MS27183-13); under trailer floor use four 3/8-in. lockwashers (MS35338-46) and four 3/8-in. hex nuts (MS51967-8).

(2) Secure three acetylene cylinders (8120-00-268-3360) to trailer walls, using six 66-in. retaining straps (7550588-9) in accordance with figures 8 and 11.

(3) Secure oxygen cylinder (8120-

4. Installation--Continued

00-151-9758) to wall, using two 36-in. retaining straps (7550588-4) in accordance with figures 8 and 13.

(4) Secure argon cylinder (8120-00-357-7992) to wall, using two 36-in. retaining straps (7550588-4) in accordance with figures 8 and 13.

(5) Secure hand hydraulic jack kit (5120-00-595-8387) to floor, using a 36-in. retaining strap (7550588-4) in accordance with figures 8 and 13.

(6) Position machinist's vise (5120-00-293-1439) on trailer tail gate in accordance with dimensions shown in figure 8. Using base as a template, mark and drill four 0.50-in. diameter holes through tailgate (fig. 9). Secure machinist's vise, using four 1/2- x 2-in. hex head capscrews (MS90725-115) and four 1/2-in. flat washers (MS27183-17); under tail gate use four 1/2-in. flat washers (AN970-8) placed on the tailgate opposite the machinist's vise, four 1/2-in. lockwashers (MS35338-48), and four 1/2-in. hex nuts (MS51967-14).

(7) Position pipe vise (5120-00-180-0670) in accordance with dimensions shown on trailer tailgate in figure 8. Using base as a template, mark and drill three 0.33-in. diameter holes through tail gate (fig. 9). Secure pipe vise, using three 5/16- x 1-3/4-in. hex head capscrews (MS90725-39) and three 5/16-in. flat washers (MS27183-11); under tailgate use three 5/16-in. flat washers (AN970-5) placed on the tailgate opposite the pipe vise, three 5/16-in. lockwashers (MS35338-45), and three 5/16-in. hex nuts (MS51967-5).

(8) Position radiator and fuel tank testing tank (4910-00-019-3048) in accordance with figures 8 and 13. Secure to trailer slats, using two 12-in. retaining straps (7550588-6) (fig. 8).

(9) Position welding screen (3438-00-198-8348) in accordance with figures 8 and 13. Secure to trailer

slats using two 12-in. retaining straps (7550588-6) (fig. 8).

i. Follow steps (1) thru (14) below for electrical component installation in unit 1, M35A2 cargo truck.

(1) To provide sufficient headroom for personnel to work in the M35A2 cargo truck, raise the bows 18 inches in accordance with figures 15 and 16, and drill ten 0.44-in. diameter holes through bow sockets and bows.

(2) Secure bows in place with ten 7/16- x 1-3/8-in. hex head capscrews (MS90725-88), ten 7/16-in. lockwashers (MS35338-47), and ten 7/16-in. hex nuts (MS51967-11).

(3) Position switch box (Square D D221NRB) on the two top slats in accordance with figure 15. Using holes of switch box as a template, mark and drill four 0.12-in. diameter pilot holes. Secure switch box to truck (slat with four #10 x 1-in. thread forming screws (MS51861-49).

(4) Install electrical power cable assembly (4910-00-800-1405) through box connector in bottom of switch box and connect to circuit breaker inside switch box (fig. 15).

(5) Position four lampholder junction boxes (Appleton 40-3/4) on inner side of second and fourth bows as shown in figure 14. Mark and drill eight 0.12-in. diameter pilot holes and secure lampholder junction boxes to bows with eight #10 x 1-in. thread forming screws (MS51861-49).

(6) Position four duplex junction boxes (5975-00-281-0090) on bows as shown in figures 15 and 16. Mark and drill eight 0.12-in. diameter pilot holes and secure duplex junction boxes to bows with eight #10 x 1-in. thread forming screws (MS51861-49).

(7) Remove two knockout slugs from each lampholder junction box and each duplex junction box in line with

4. Installation--Continued

bows. Install twelve box connectors (Appleton 15233) in the junction boxes and install jam nuts on box connectors in accordance with figure 17.

(8) Fabricate four power cable assemblies (11021163, 11021164, 11021165, and 11021166), using approximately 14 feet of cable (6145-00-295-0855). Install four box connectors (Appleton 15233). Refer to figures 18 thru 21 for individual power cable construction, and install in accordance with figures 14 thru 17.

(9) Install 28 feet of cable (6145-00-295-1055) through duplex junction boxes and lampholder junction boxes on second and fourth bows. Refer to figures 15 thru 17. Strip a 3-in. length of outside insulation from cable on inside of each junction box. Strip 1 inch of insulation from each individual wire and twist wire to fit terminal lugs (MS20659-141). Install and crimp terminal lugs in place in accordance with figure 17.

(10) Connect three wires to lampholder (GE-5740-7), and secure to lampholder junction box (Appleton 40-3/4), with screws provided with lampholder junction box. Repeat this step

for remaining three lampholder junction boxes. Refer to figures 15 thru 17.

(11) Install four grounded duplex receptacles (5935-01-058-9269) after stripping 3 inches of outside insulation from cable. Refer to figure 17. Strip 1 inch of insulation from each individual wire and twist wires to fit terminal lugs (MS20659-141). Install terminal lugs and crimp. Connect wires to grounded duplex receptacles, and secure grounded duplex receptacles to duplex junction boxes with screws provided with grounded duplex receptacles in accordance with figures 15 thru 17.

(12) Install four duplex junction box covers (Appleton 2510) to duplex junction boxes (5975-00-281-0090) and secure with screws provided in duplex junction box covers. Refer to figures 15 and 16.

(13) Tighten all box connectors (Appleton 15233) to secure flexible cords in junction boxes and switch box. Refer to figures 14 thru 21.

(14) Secure power cable assemblies to bows and truck rack with twenty-eight tiedown straps (MS3367-3) (fig. 14 thru 16).

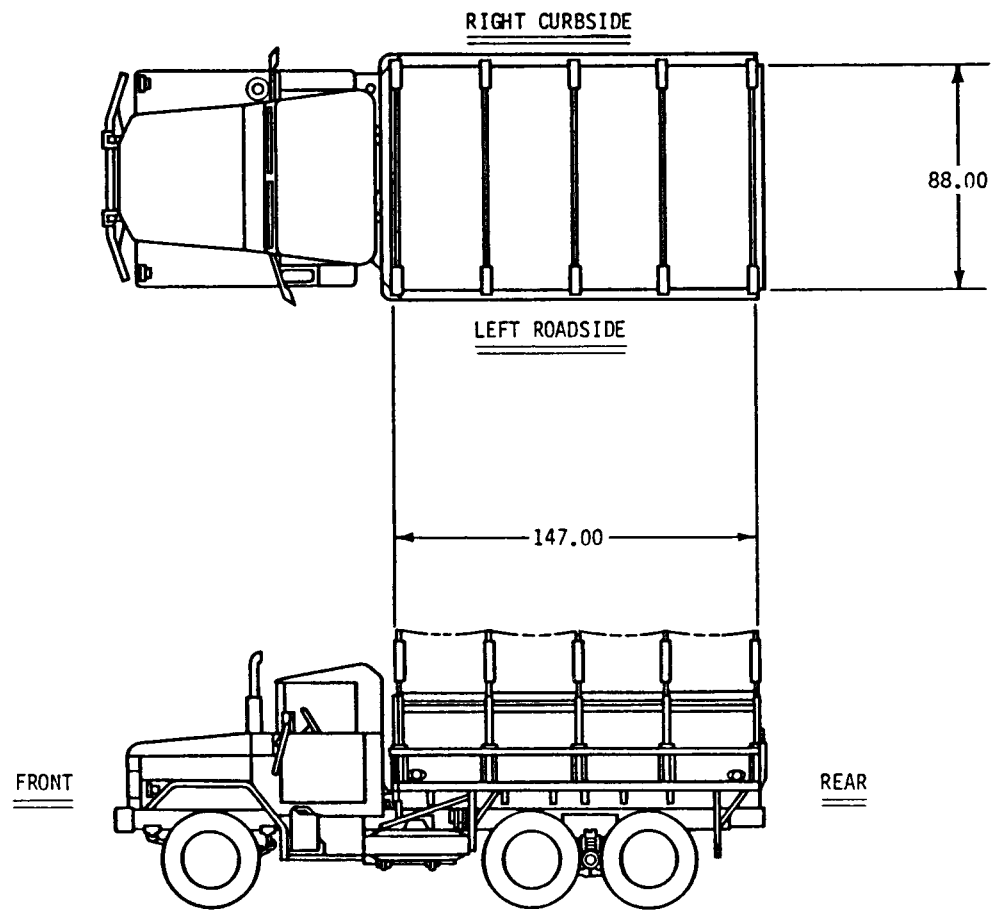


Figure 1. Cargo Truck, M35A2, Unit 1.

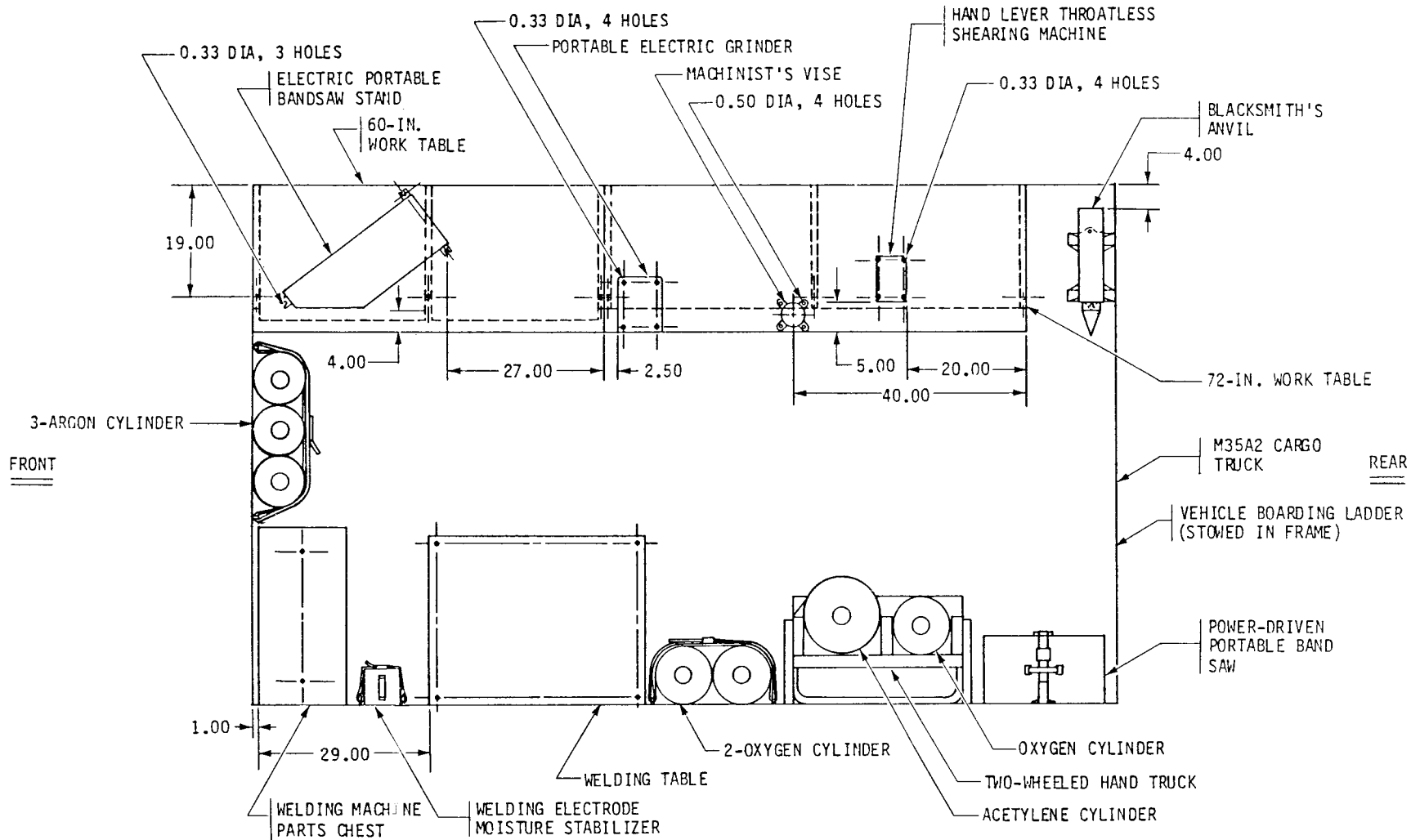


Figure 2. Components to be Mounted, Unit 1, M35A2, Floor Plan.

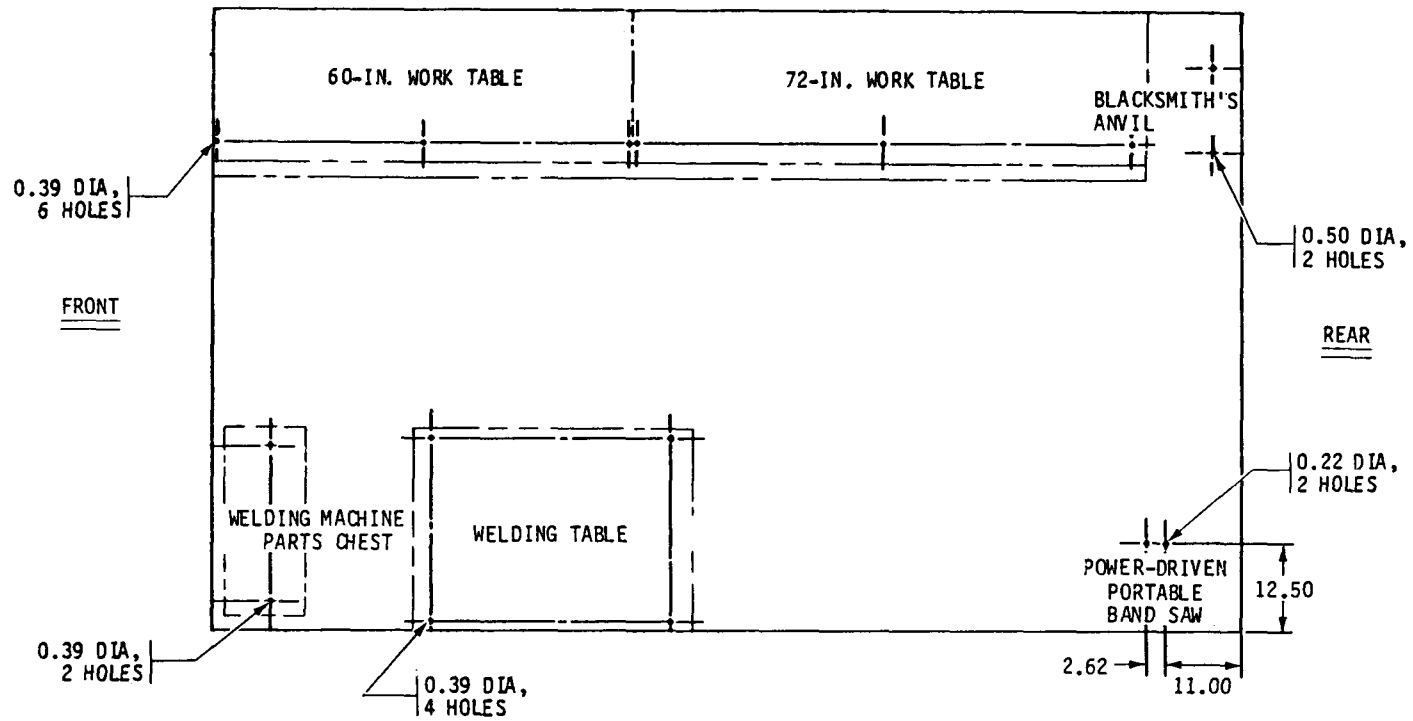


Figure 3. Hole Dimensions for Mounted Components and Strap Loops, Unit 1, M35A2, Floor Plan.

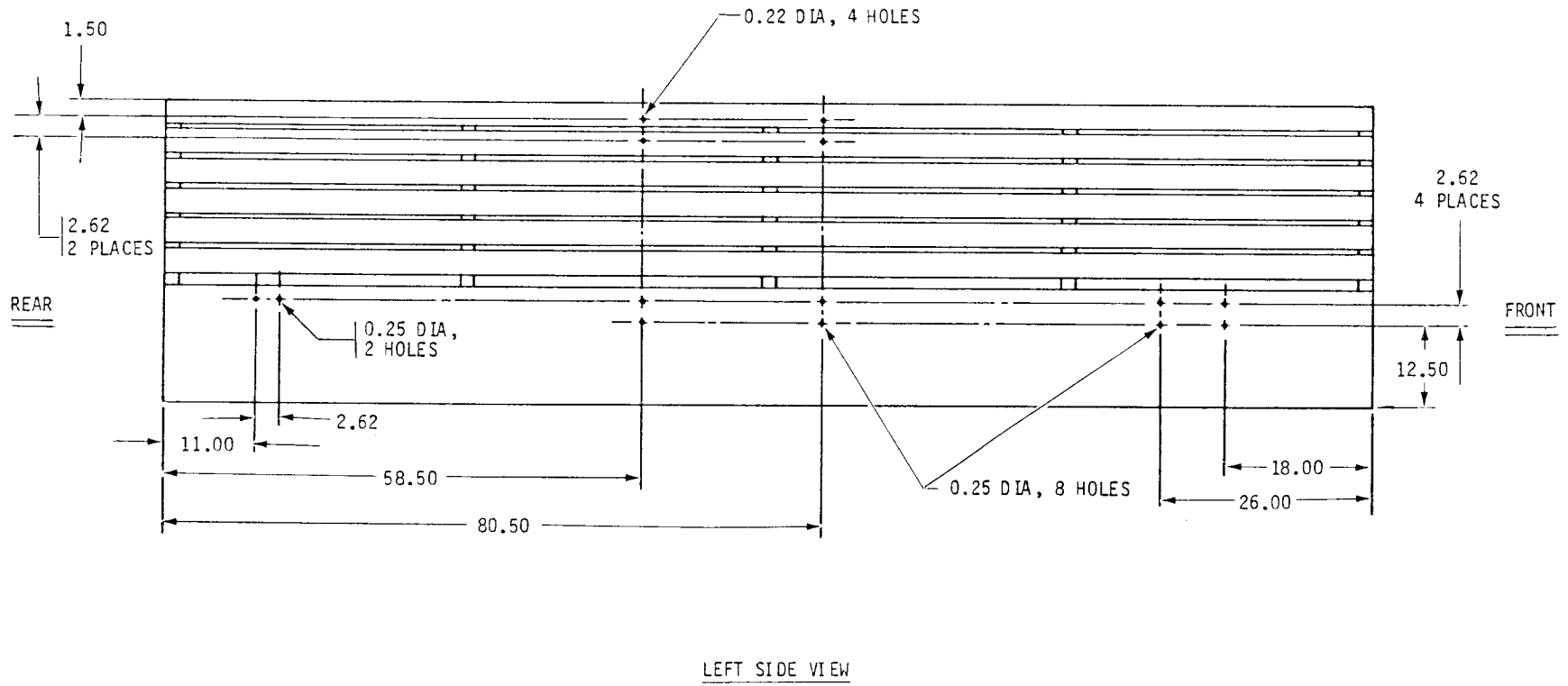


Figure 4. Hole Dimensions for Blind Rivet N: and Strap Loops, Unit 1, M35A2, Left Side View

72-IN. WORK TABLE

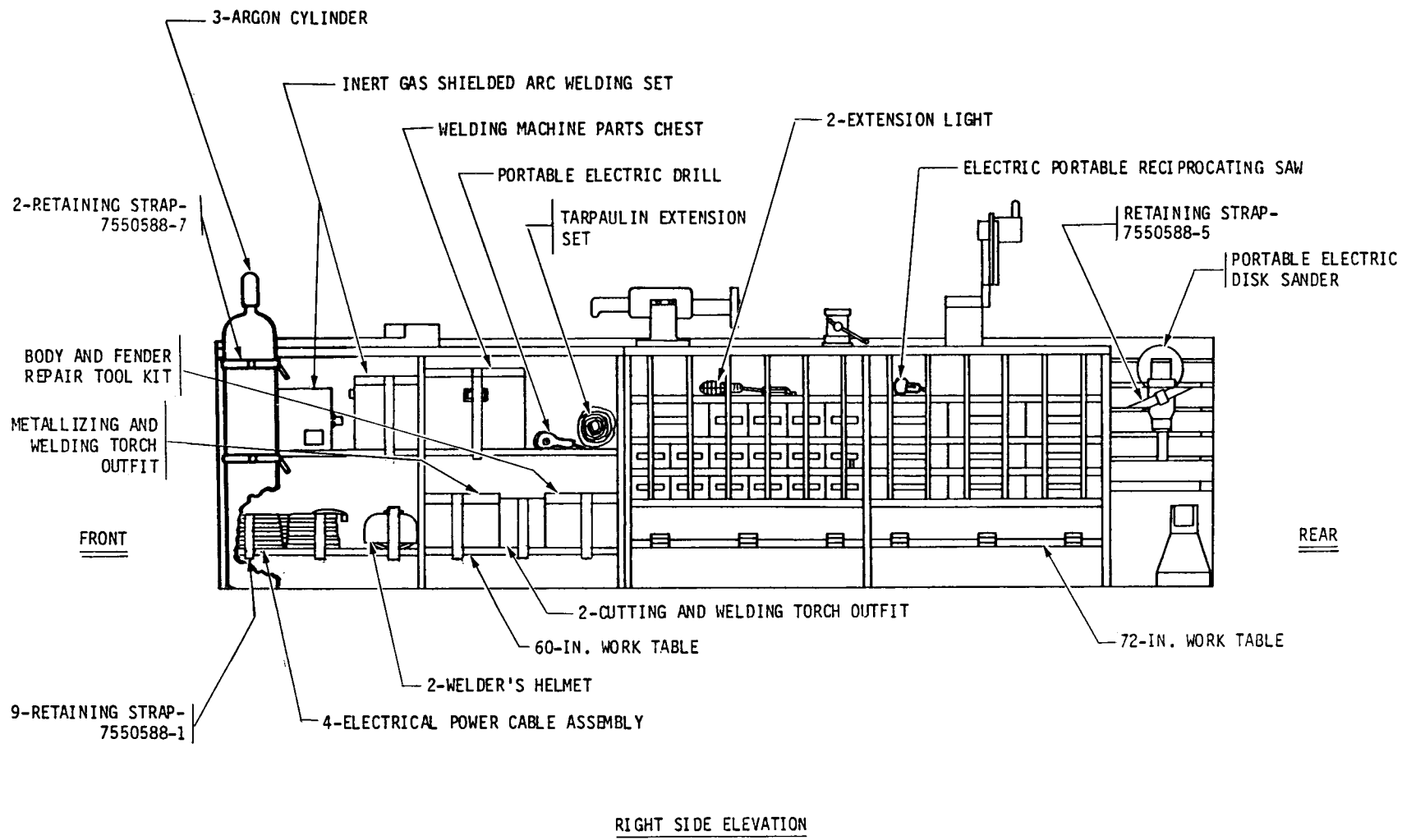


Figure 5. Components to be Stowed, Unit 1, M35A2, Right Side Elevation.

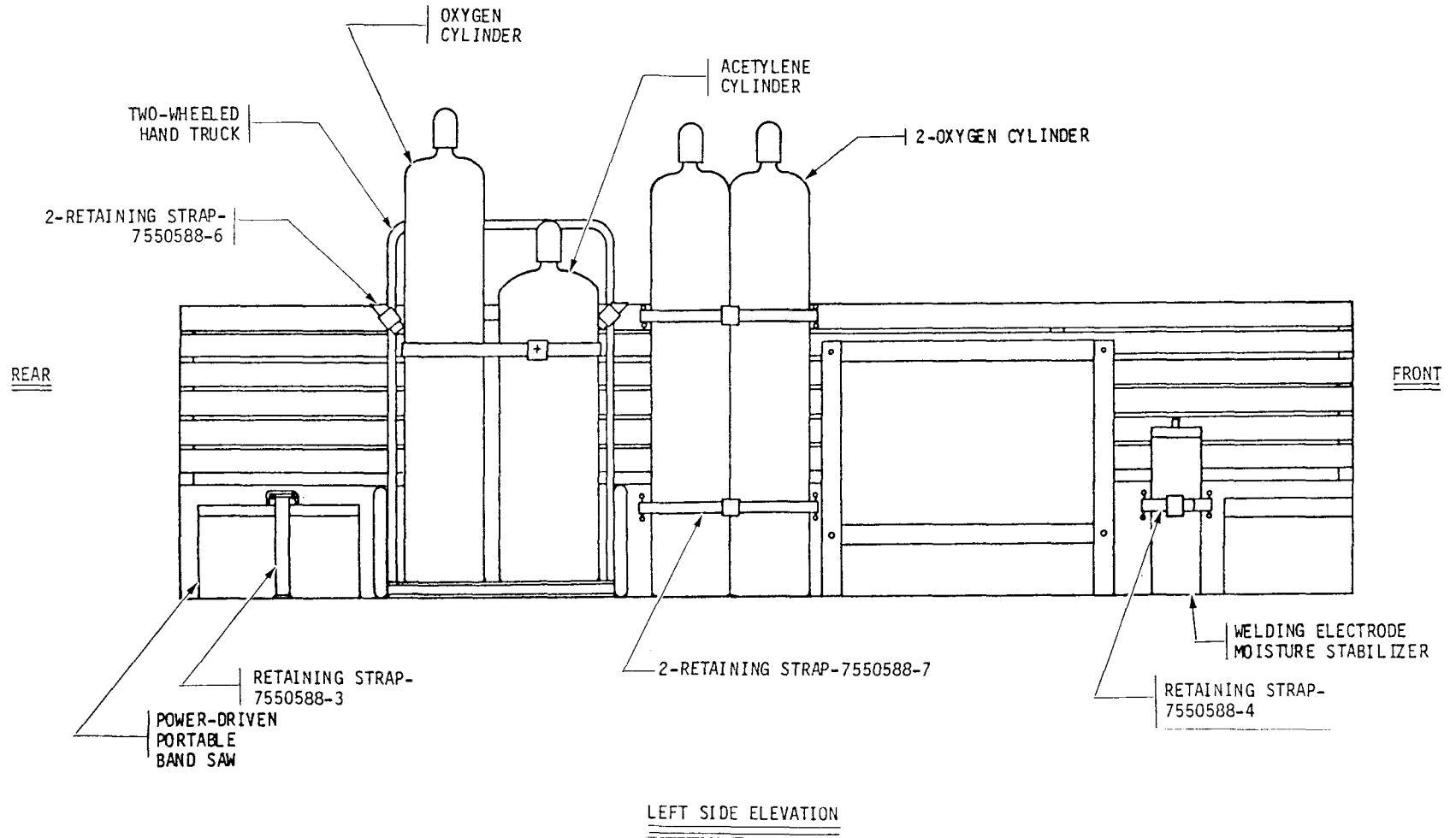


Figure 6. Components to be Mounted, Unit 1, M35A2, Left Side Elevation.

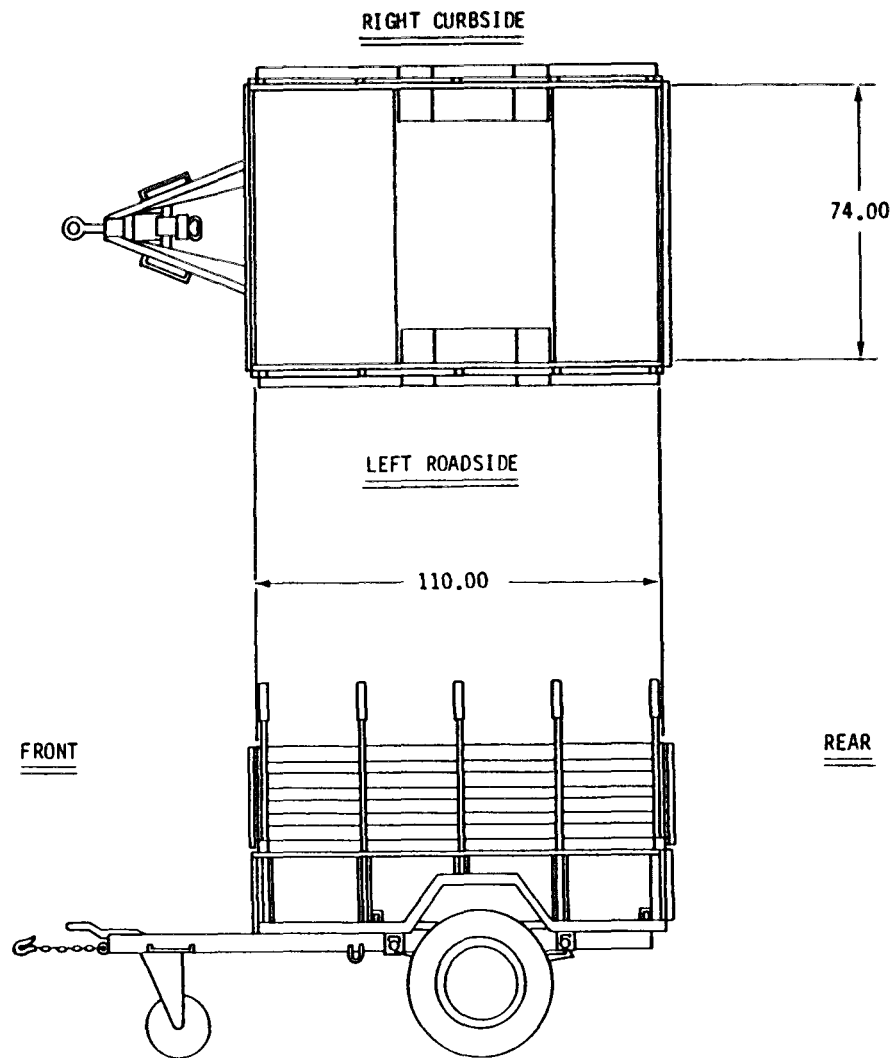


Figure 7. Cargo Trailer, M105A2, Unit 2.

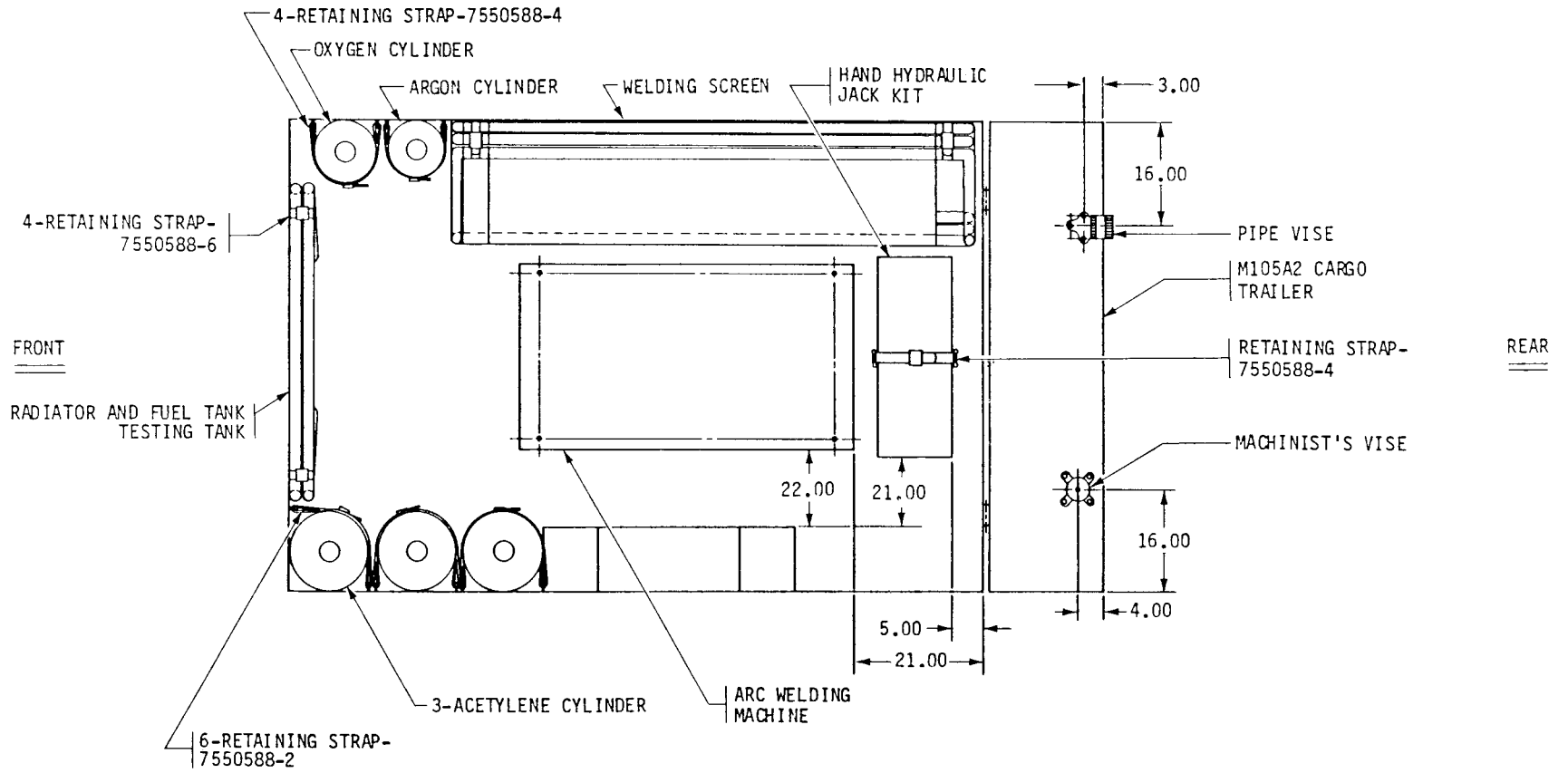


Figure 8. Components to be Mounted, Unit 2, M105A2, Floor Plan.

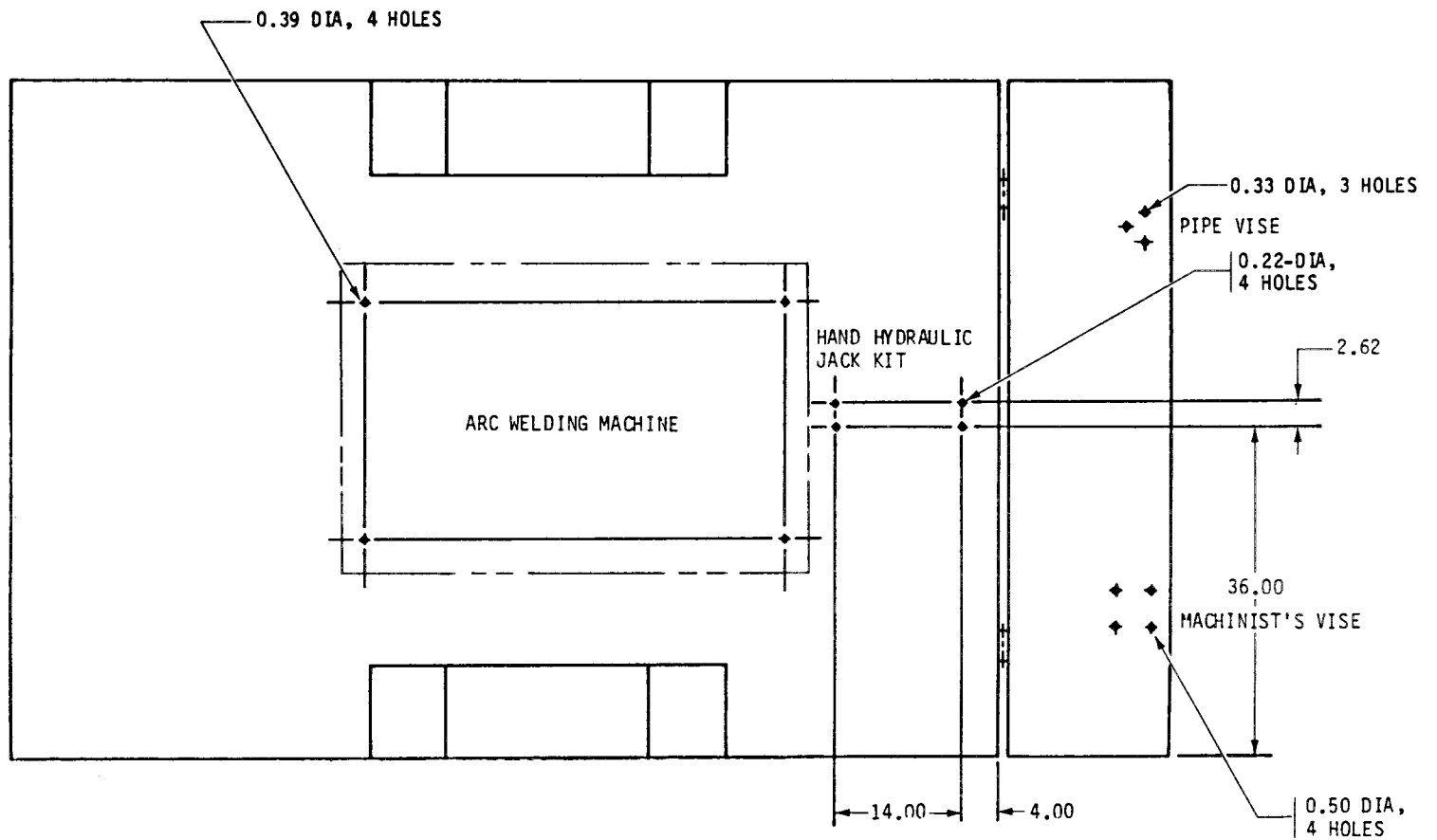


Figure 9. Hole Dimensions for Blind Rivet Nuts and Strap Loops, Unit 2, M105A2, Floor Plan.

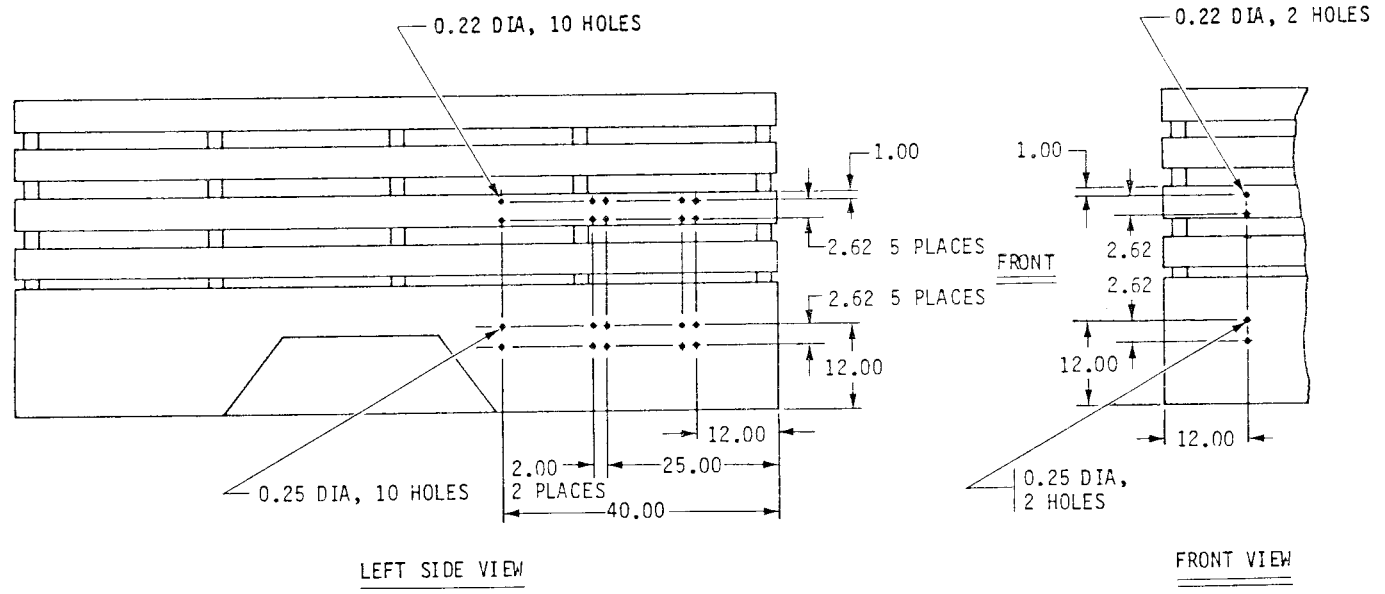


Figure 10. Hole Dimensions for Blind Rivet Nuts and Strap Loops, Unit 2, M105A2, Left Side and Front View.

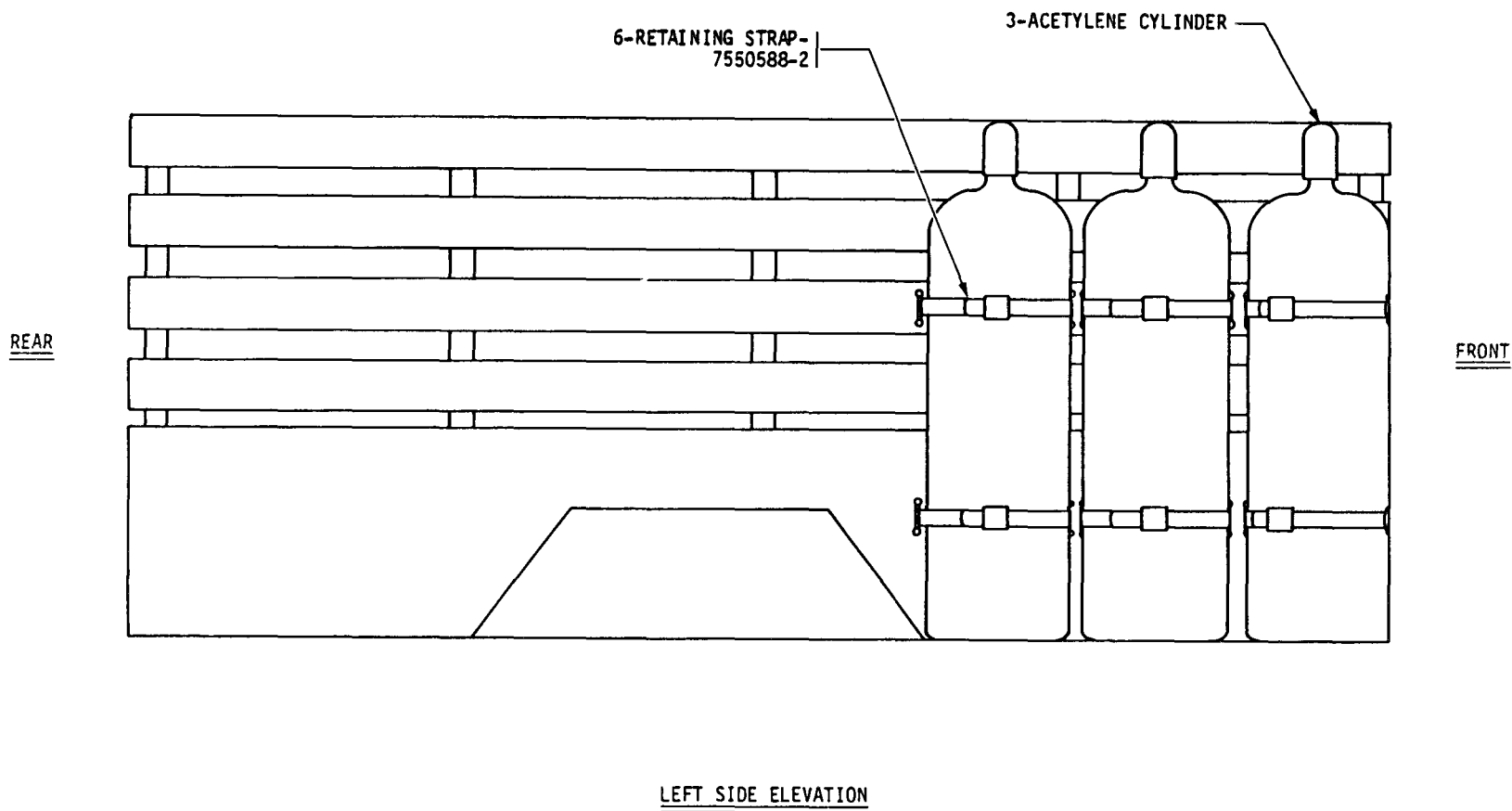


Figure 11. Components to be Mounted, Unit 2, M105A2, Left Side Elevation.

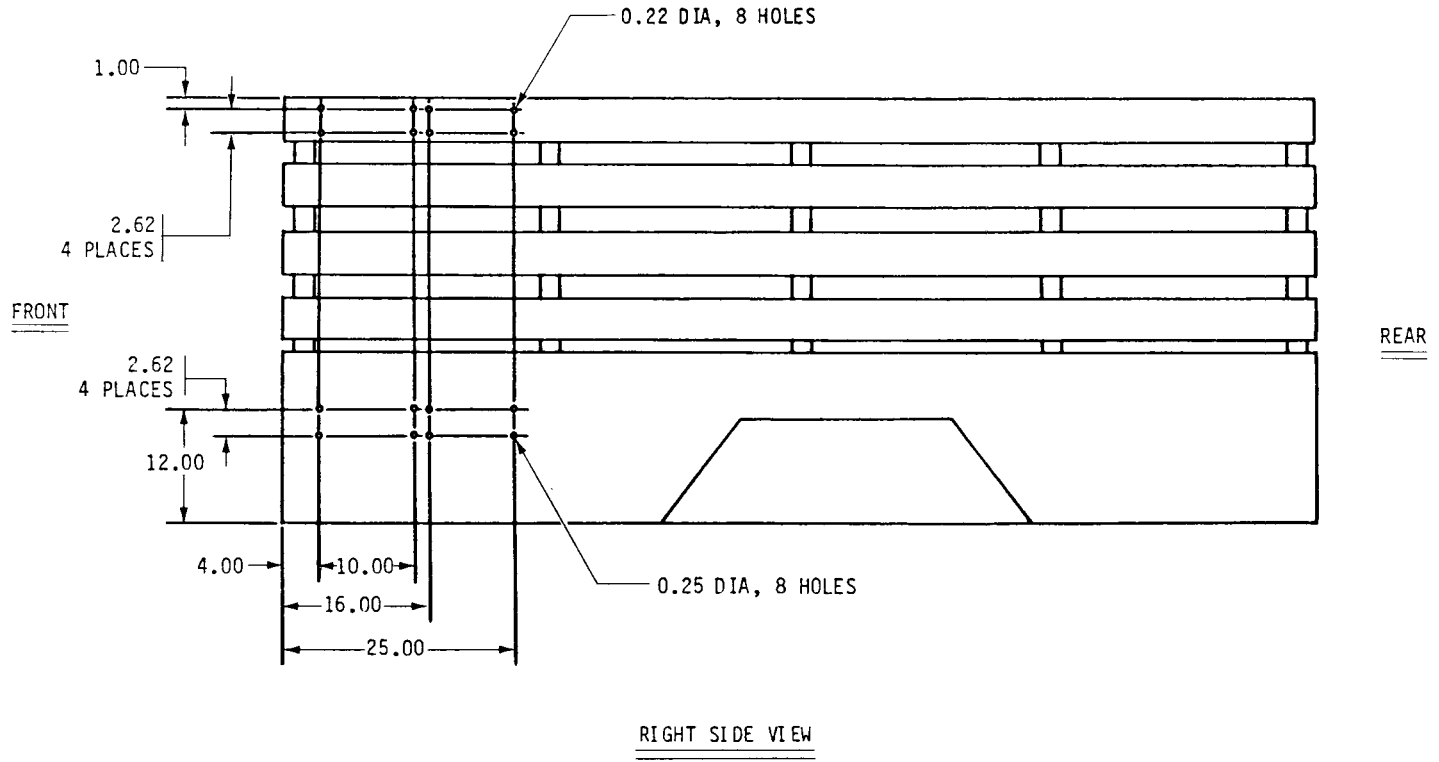


Figure 12. Hole Dimensions for Blind Rivet Nuts and Strap Loops, Unit 2, M105A2, Right Side View.

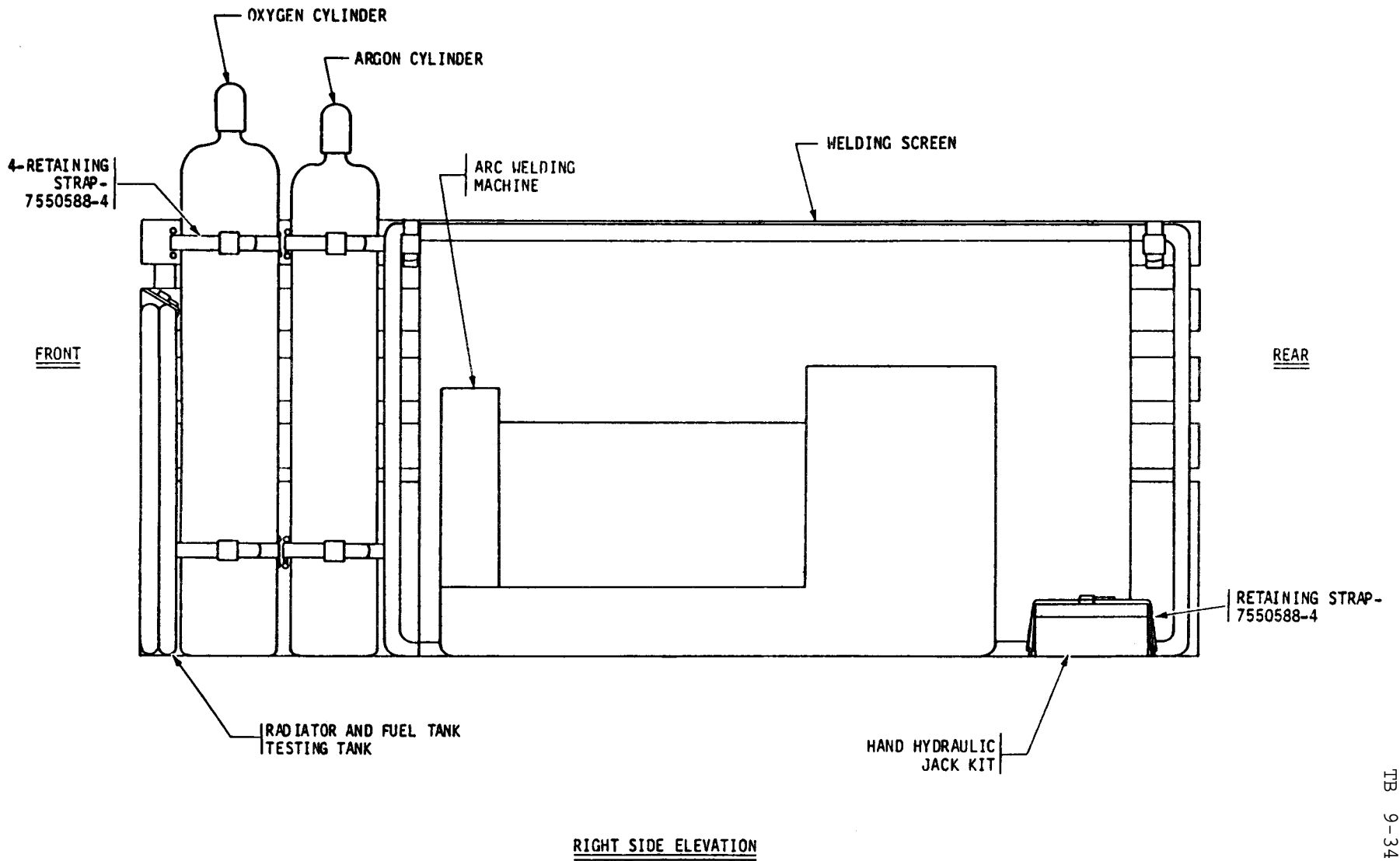


Figure 13. Components to be Mounted, Unit 2, M105A2, Right Side Elevation.

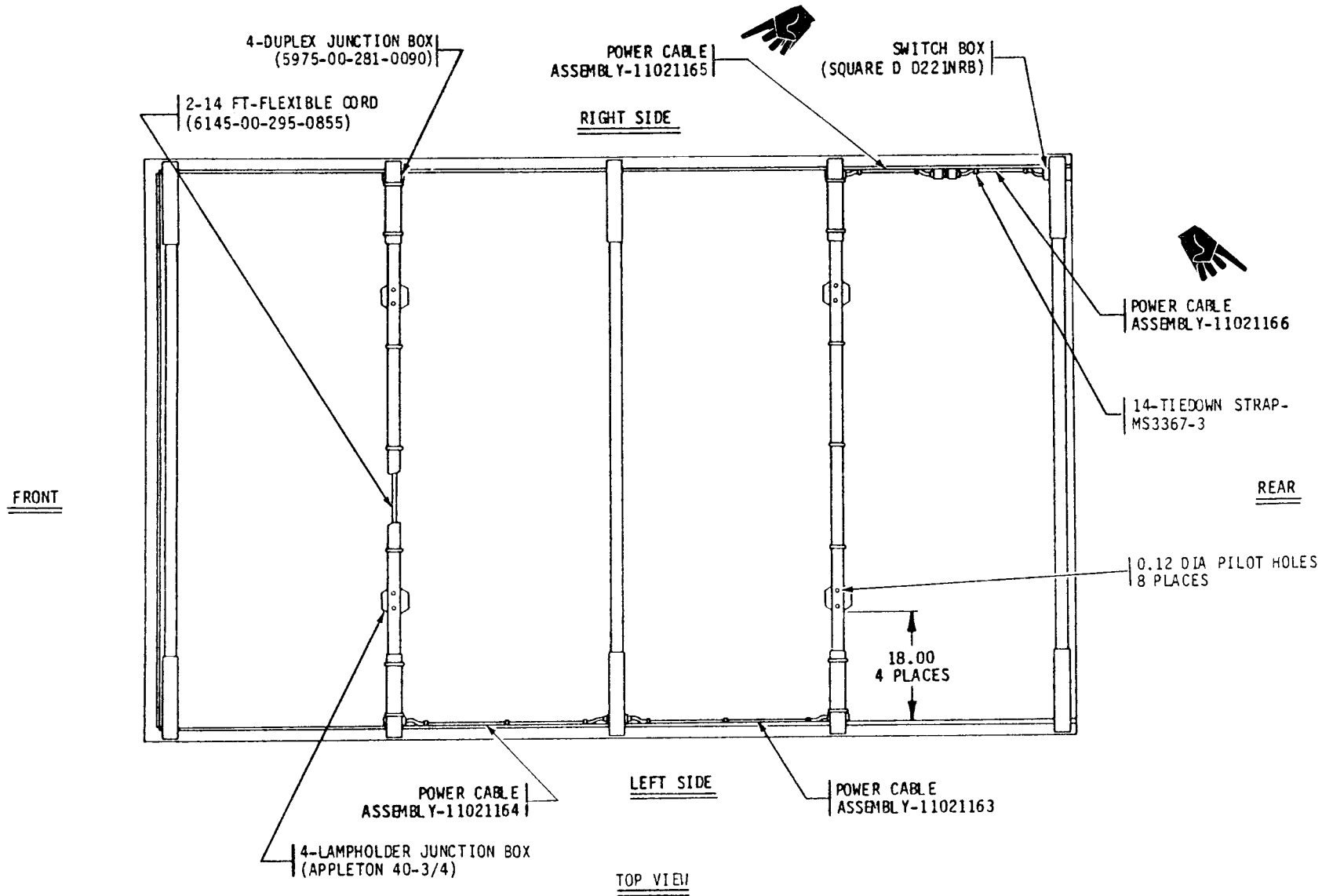


Figure 14. Electrical Components to be Mounted, Unit 1, M35A2, Top View.

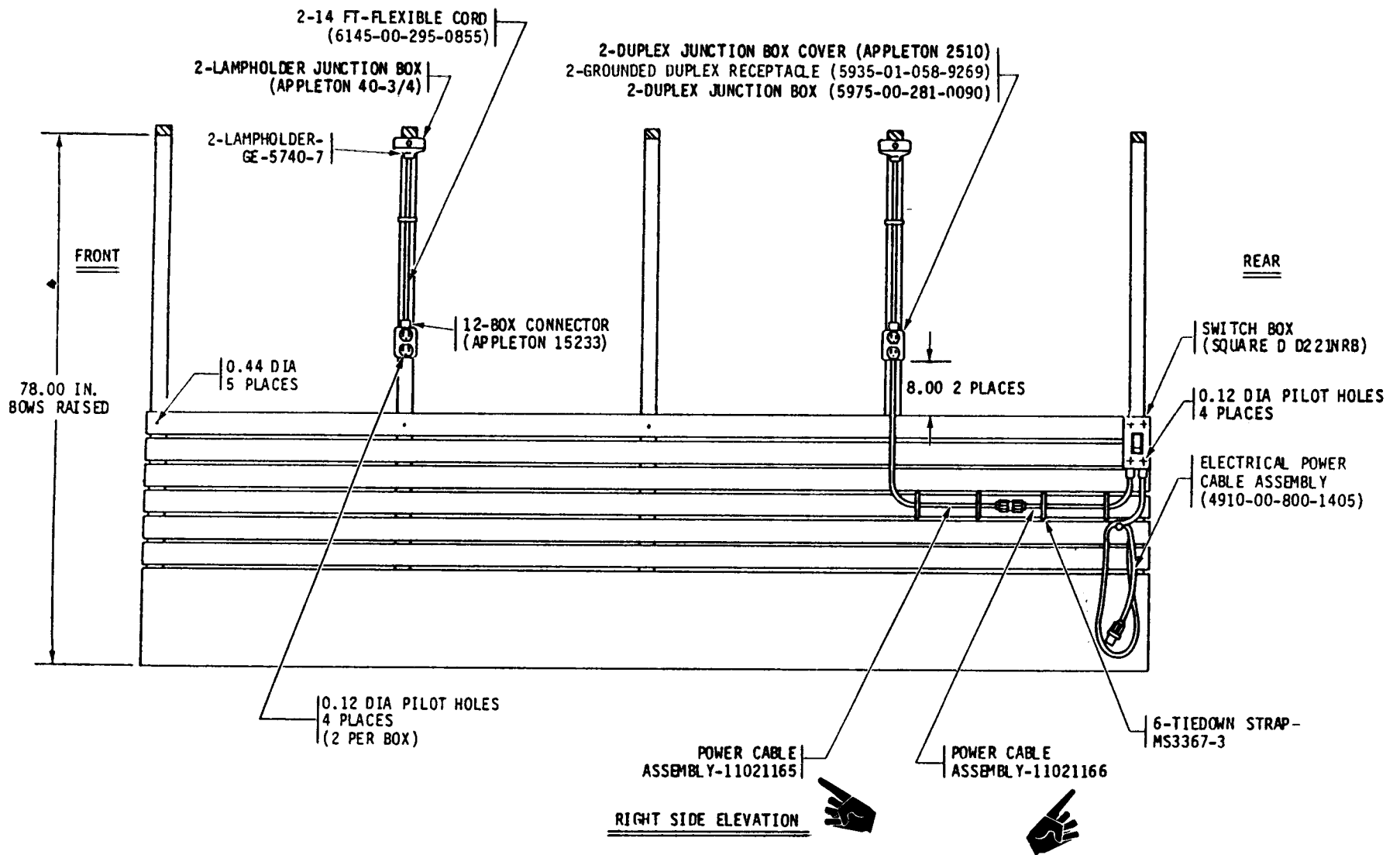


Figure 15. Electrical Components to be Mounted, Unit 1, M35A2, Right Side Elevation.

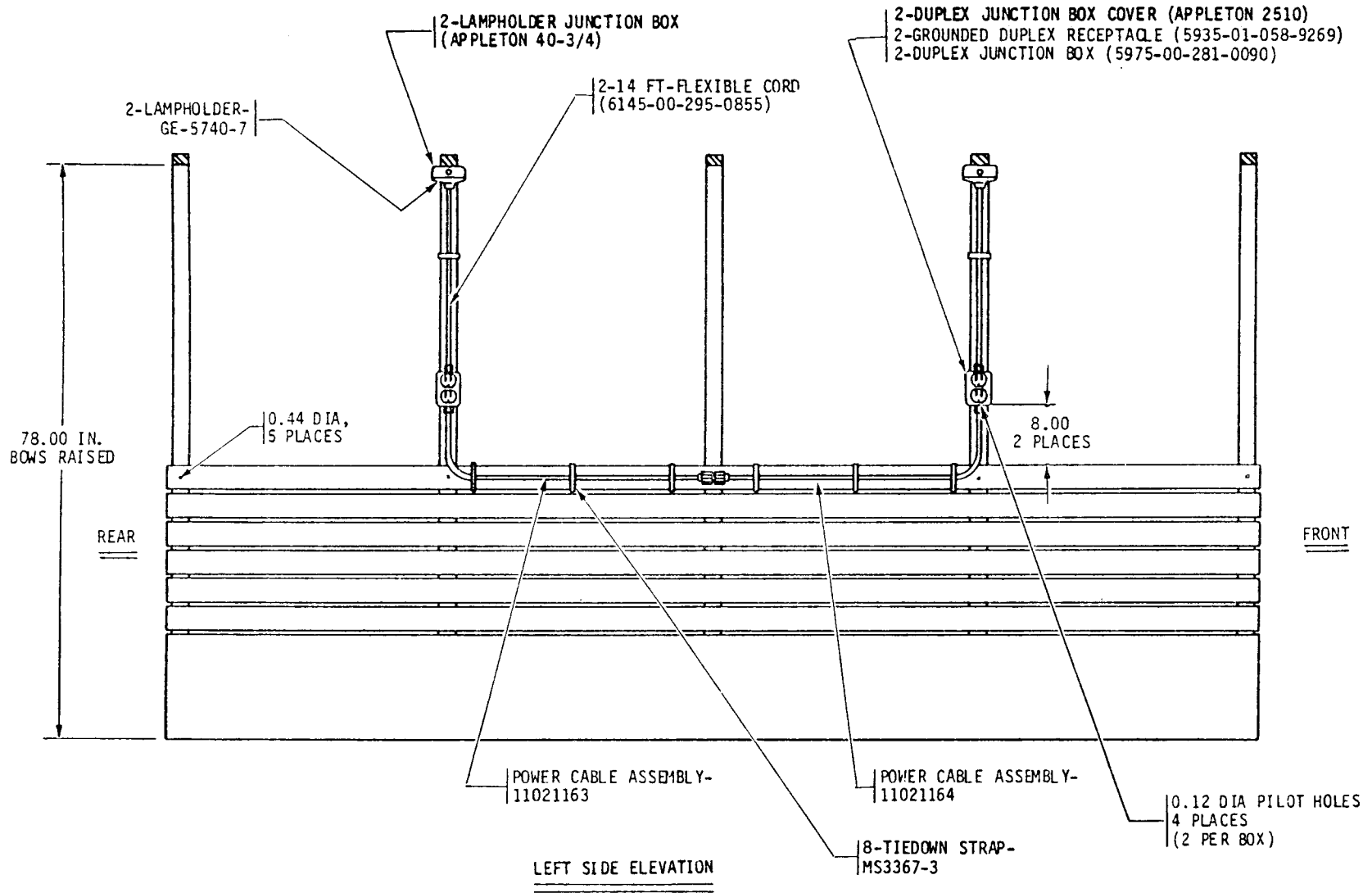


Figure 16. Dimensions for Electrical Components to be Mounted, Unit 1, M35A2, Left Side Elevation.

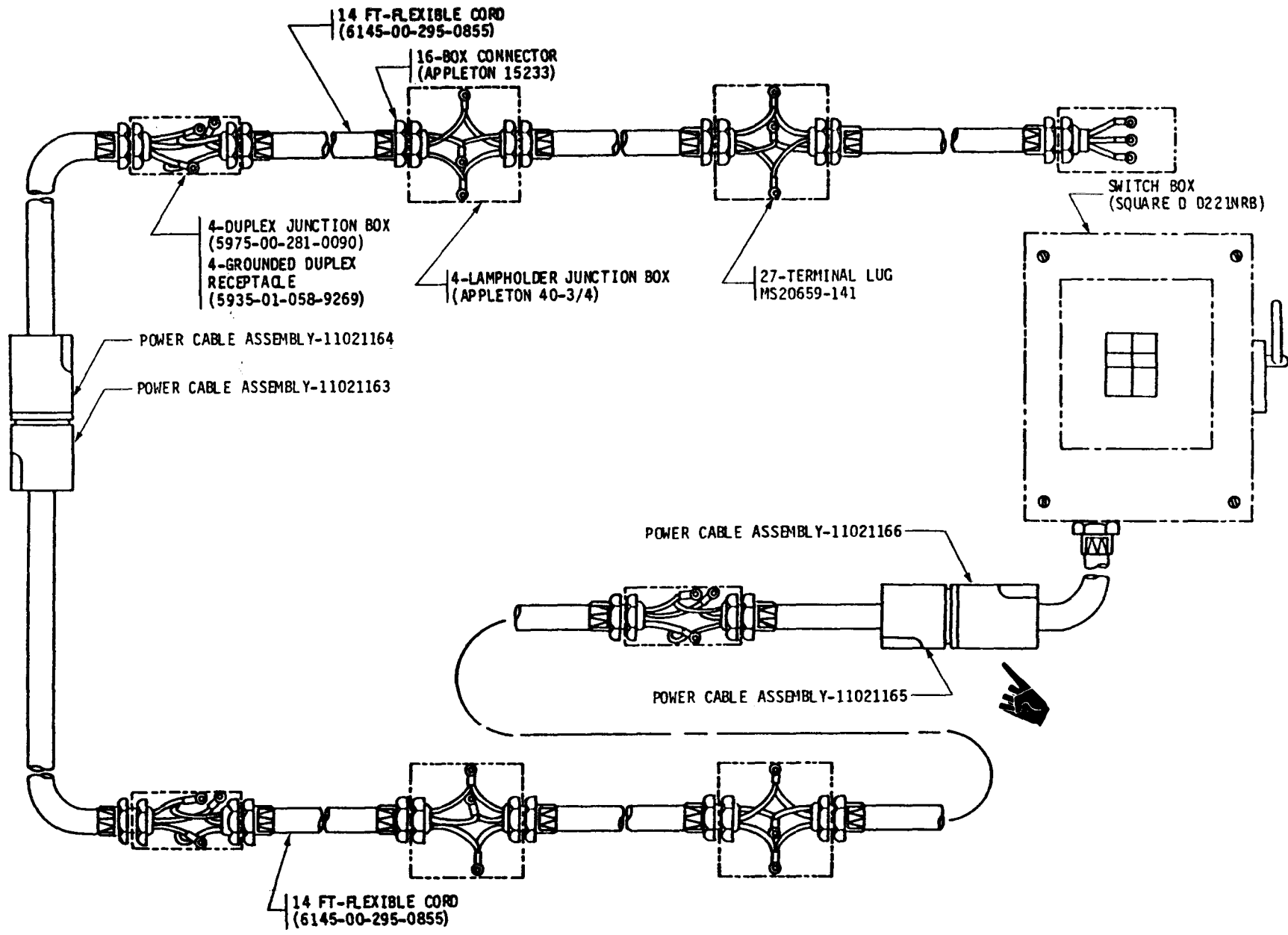


Figure 17. Electrical Schematic, Unit 1, M35A2.

Change 1 2 9

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WIRING DIAGRAM

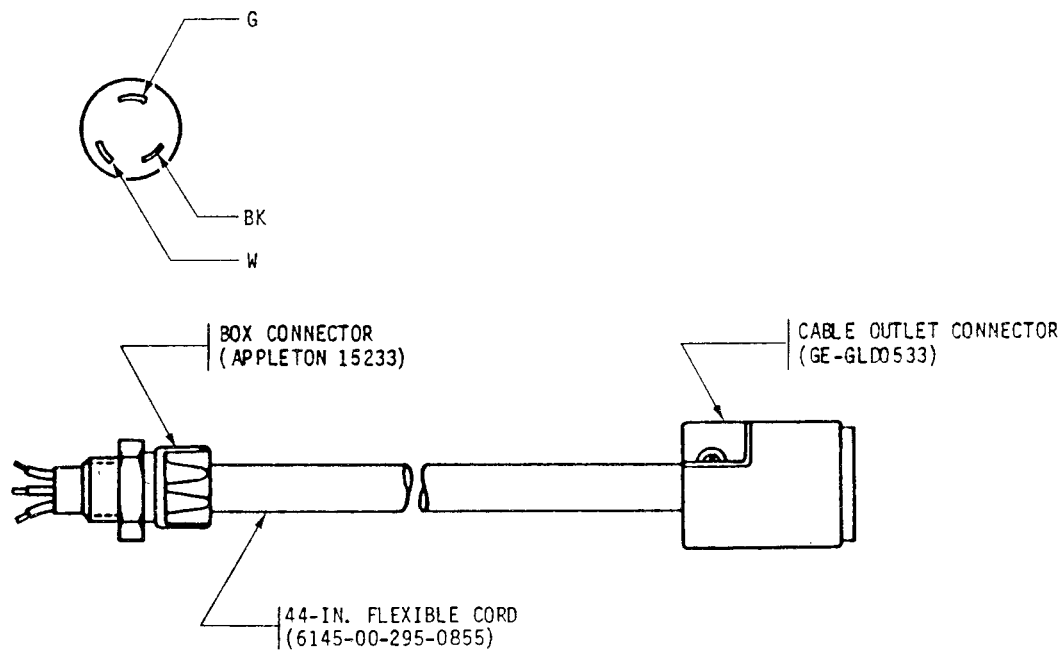


Figure 18. Power Cable Assembly, 11021163, Unit 1, M35A2.

WIRING DIAGRAM

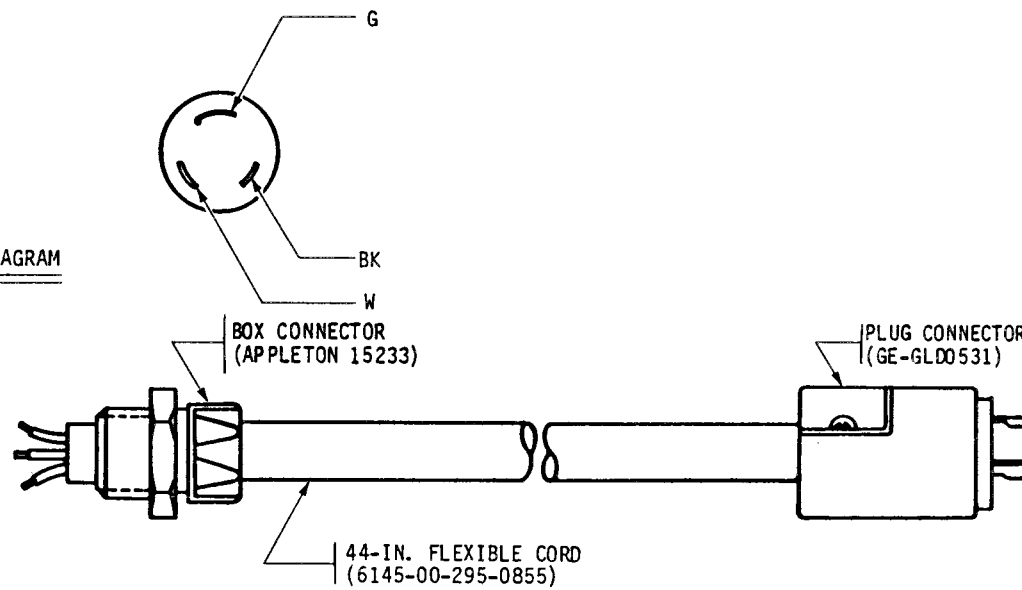


Figure 19. Power Cable Assembly, 11021164, Unit 1, M35A2.

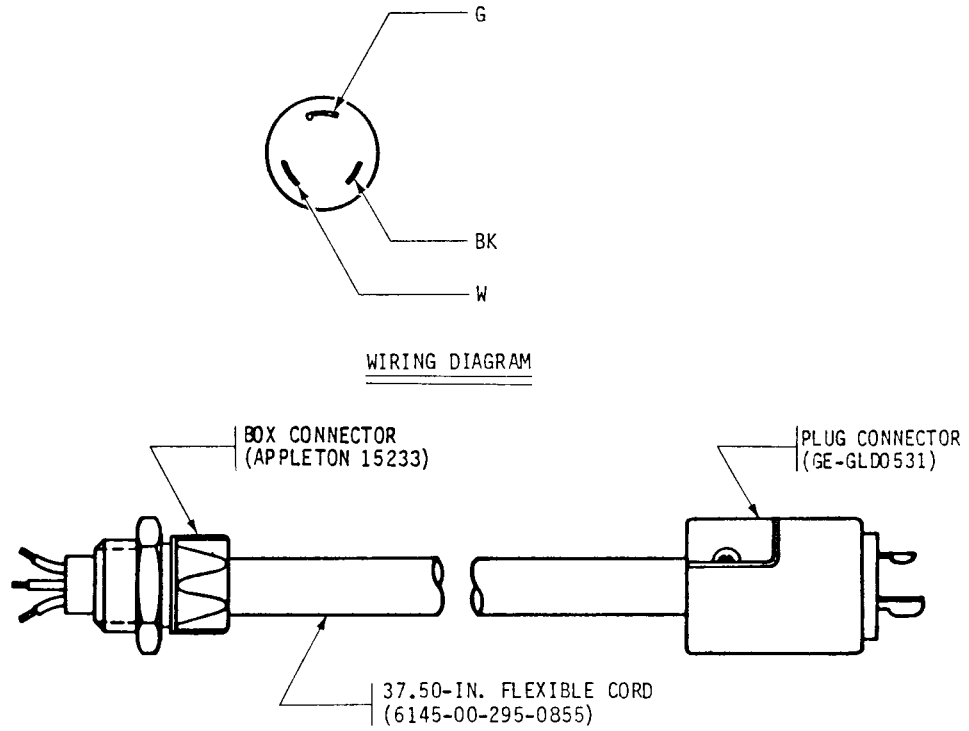
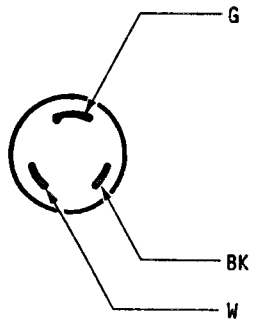


Figure 20. Power Cable Assembly, 11021165, Unit 1, M35A2.



WIRING DIAGRAM

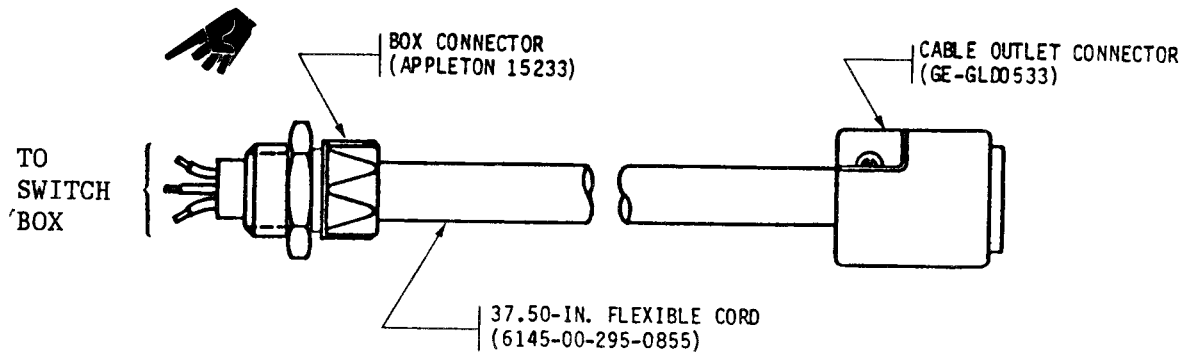


Figure 21. Power Cable Assembly, 11021166, Unit 1, M35A2.

Table 4. Standard Conversion Chart

Nomi nal si ze	Deci mal si ze	Nomi nal si ze	Deci mal si ze
1/16	0.06	35/64	0.55
5/64	0.08	9/16	0.56
3/32	0.09	37/64	0.58
7/64	0.11	19/32	0.59
1/8	0.12	39/64	0.61
9/64	0.14	5/8	0.62
5/32	0.16	41/64	0.64
11/64	0.17	21/32	0.66
3/16	0.19	43/64	0.67
13/64	0.20	11/16	0.69
7/32	0.22	45/64	0.70
15/64	0.23	23/32	0.72
1/4	0.25	47/64	0.73
17/64	0.27	3/4	0.75
9/32	0.28	49/64	0.77
19/64	0.30	25/32	0.78
5/16	0.31	51/64	0.80
21/64	0.33	13/16	0.81
11/32	0.34	53/64	0.83
23/64	0.36	27/32	0.84
3/8	0.38	55/64	0.86
25/64	0.39	7/8	0.88
13/32	0.41	57/64	0.89
27/64	0.42	29/32	0.91
7/16	0.44	59/64	0.92
29/64	0.45	15/16	0.94
15/32	0.47	61/64	0.95
31/64	0.48	31/32	0.97
1/2	0.50	63/64	0.98
33/64	0.52	1	1.00
17/32	0.53		

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