

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, FIELD,
AND DEPOT MAINTENANCE MANUAL

SHOP SET,
AIRCRAFT MAINTENANCE,
SEMITRAILER MOUNTED,
SET C5, WELDING

HEADQUARTERS, DEPARTMENT OF THE ARMY

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TECHNICAL MANUAL

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., 9 October 1961**OPERATOR, ORGANIZATIONAL, FIELD, AND DEPOT MAINTENANCE MANUAL****SHOP SET, AIRCRAFT MAINTENANCE, SEMITRAILER MOUNTED,****SET C-5, WELDING**

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

These instructions are published for the use of operating and maintenance personnel to whom the end item or equipment is assigned. They contain information on the operation, lubrication, detail preventive maintenance services, and maintenance of the equipment, its accessories and auxiliaries; also packing, preservation, storing, and shipping procedures.

2. References

a. *Current Technical References.* Appendix I list technical publications applicable to the equipment as noted in detailed instructions contained herein.

b. *Maintenance Allocation.*

(1) *Organizational maintenance allocation.*
In general, the prescribed organizational maintenance responsibilities will apply in accordance with the extent of disassembly prescribed in the maintenance allocation charts (app. II), for the purpose of cleaning, lubricating, or replacing spare parts. In all cases where the nature of the repair, modification, or adjustment is beyond the scope or facilities of the using organization, the applicable supporting maintenance unit should be informed so that trained personnel with suitable tools and equipment may be provided or other instructions issued.

(2) *Field and depot maintenance allocation.*
The publication herein of instructions for complete disassembly and repair is not to be construed as authority for the performance by field maintenance units

of those functions which are the responsibilities of depots. The prescribed maintenance responsibilities will apply as reflected in the applicable manual for the item of equipment. Provisioning of parts listed in chapters 8 and 9 for the item will be made to field maintenance only when the emergency nature of the maintenance to be performed has been certified by a responsible officer of the requisitioning organization.

3. Forms, Records, and Reports

a. *General.* Responsibility for the proper execution of forms, records, and reports rests upon the commanding officers of all units maintaining this equipment. However, the value of accurate records must be appreciated fully by all persons responsible for their compilation, maintenance, and use. Records, reports, and authorized forms are normally utilized to indicate the type, quantity, and condition of material to be inspected, to be repaired, or to be used in repair. Properly executed forms convey authorization and serve as records for repair or replacement of material in the hands of troops and for delivery of material requiring further repair to shops, depots, etc. The forms, records, and reports establish the work required, the progress of the work required, the progress of the work within the shops, and the status of the material upon completion of its repair.

b. *Authorized Forms.* For a complete listing of forms, refer to current DA Pam 310-2.

c. *Field Report of Accidents.* The reports necessary to comply with the requirements of the Army Safety Program are prescribed in detail in the AR 385-series. These reports are required whenever accidents involving injury to personnel or damage to material occur.

d. *Report of Unsatisfactory or Damaged Equipment or Materials.* Any suggestions for improvement in design and maintenance of equipment and repair parts, safety and efficiency of operation, or pertaining to the application of prescribed lubricants and/or preserving materials, or technical inaccuracies

noted in Department of the Army publications, will be reported as prescribed in AR 700-38, using DA Form 468 (Unsatisfactory Equipment Report) or DD Form 6, as prescribed in AR 700-58. Such suggestions are encouraged in order that other organizations may benefit. Do not report all failures that occur. Report only repeated failures or unsatisfactory design or material. However, reports will always be made when exceptionally costly equipment is involved. Refer also to AR 700-38 and the printed instructions on DA Form 468.

Section II. DESCRIPTION AND DATA

4. Description

a. *General.* Shop Set, Aircraft Maintenance, Semitrailer Mounted, C-5, Welding, consists of a semitrailer mounted van and necessary tools and equipment for an Army aviation field maintenance shop, operating in the field, performing the functions of a welding facility. The shop set contains three systems; electrical, pneumatic, and utility.

(1) *Electrical system.* Electrical power is supplied by an auxiliary source. An external power receptacle, designed to accommodate a plug attached to the auxiliary power cord, is mounted at the right rear corner of the van. The external power receptacle feeds directly to the electric control panel (fig. 4), which is provided to distribute the power source to the point of use. The electric control panel is mounted in the right rear exterior corner of the shop. The control panel contains 14 thermal-magnetic circuit breakers which serve as distribution centers for the current supplied to the equipment of the shop. A receptacle is provided to furnish current for small, electrically operated tools.

(2) *Pneumatic system, semitrailer mounted shop set.* Power for the pneumatic system is supplied from an external source. Air lines are installed (figs. 9, 10, and 12), to the oil and water separator and regulators, and from the regulators to the ceiling outlets. The pneumatic system controls and

instruments (fig. 5), are mounted as a unit. This unit contains an oil and water separator for collecting and draining off accumulated oil and water, a source pressure gage, two regulators for maintaining a steady operating pressure, two operating pressure gages, check units, and valves to control or disconnect the air pressure.

(3) *Utility system.* The utility system consists of one each, 1 3/4 by 30 by

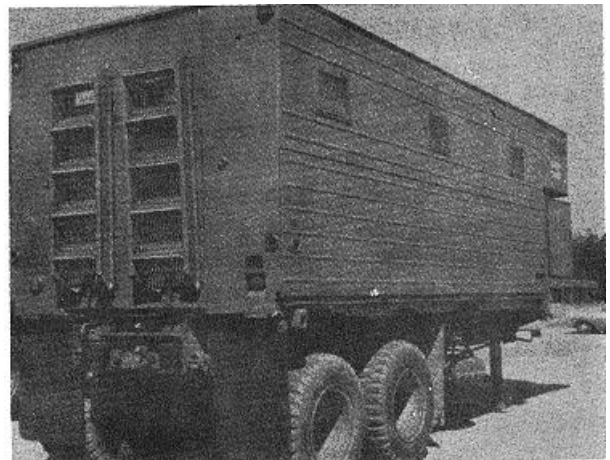


Figure 1. Shop Set, C-5, Welding.