

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S MANUAL

WELDING MACHINE , ARC

GENERATOR, DIESEL DRIVEN, SINGLE
OPERATOR, REMOTE CONTROL, 300 AMP
DC ARC, SKID MTD, 60 AMP 20 V MIN
375 AMP AT 40 V MAX, CURRENT 115 V
3 KW AUXILIARY POWER (LIBBY MODEL
ODW-300) FSN 3431-894-1573

This copy is a reprint which includes current pages from Change 3.

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AUGUST 1962

TECHNICAL MANUAL

No. 5-3431-201-10

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HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., 15 August 1962**OPERATOR'S MANUAL****WELDING MACHINE, ARC: GENERATOR; DIESEL DRIVEN SINGLE
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AMP 20 V MIN, 375 AMP AT 40 V MAX, CURRENT 115 V,
3 KW AUXILIARY POWER (LIBBY MODEL ODW-300)
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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

a. These instructions are published for the use of the personnel to whom the Libby Model ODW-300 Welding Machine is issued. They provide information on the operation, lubrication, and preventive maintenance services of the equipment, accessories, components, and attachments.

b. Appendix I contains a list of publications applicable to this manual. Appendix II lists the basic issue items authorized for use by the operator. The maintenance allocation chart is in TM 5-3431-201-20.

c. Numbers in parentheses on illustrations indicate quantity. Numbers preceding nomenclature callouts on illustrations indicate the preferred maintenance sequence.

d. Report all deficiencies in this manual on DA Form 2028. Submit recommendations for changes, additions, or deletions to the commanding officer, U.S. Army Engineer Maintenance Center, ATTN: EMCDM-S, P.O. Box 119, Columbus 16, Ohio. Direct communication is authorized.

e. Report unsatisfactory equipment performance and suggestions for equipment improvement to the organizational unit for initiating necessary corrective action.

2. Record and Report Forms

a. DA Form 2258 (Depreservation Guide of Engineer Equipment).

b. For other record and report forms applicable to the operator, refer to TM 5-505, Maintenance of Engineer Equipment.

Applicable	Note
Standard Form 46	forms, excluding
the operator,	Standard Form 46 which is carried by
can be kept in a	the operator, shall be kept in a
canvas bag	canvas bag mounted on the
equipment.	equipment.

Section II. DESCRIPTION AND DATA

3. Description

a. *General.* The Libby Welding Company Inc., Welding Machine (figs. 1 and 2), Model ODW-300, is a self-contained, skid-mounted, enclosed unit, and is completely winterized. The welding machine is equipped with the necessary controls, instruments, and accessories for operation. All accessories of the welding machine are readily accessible through the hinged panels. The unit is equipped with a towing eye in the front for towing and a lifting eye on top for lifting the unit. The unit can also be used as a 3-kilowatt auxiliary generator.

b. *Engine.* The diesel engine (fig. 1) is a 2-cylinder, in line, 2-cycle, 56-horsepower, liquid-cooled, full-diesel engine. The engine has full-pressure lubrication and is designed to operate at 1,400 revolutions per minute under load. The direction of engine rotation is counterclockwise when viewed from the flywheel end of the engine.

4. Identification and Tabulated Data

a. *Identification.* The welding machine has five identification plates. The Corps of Engineers plate is located on the left side of

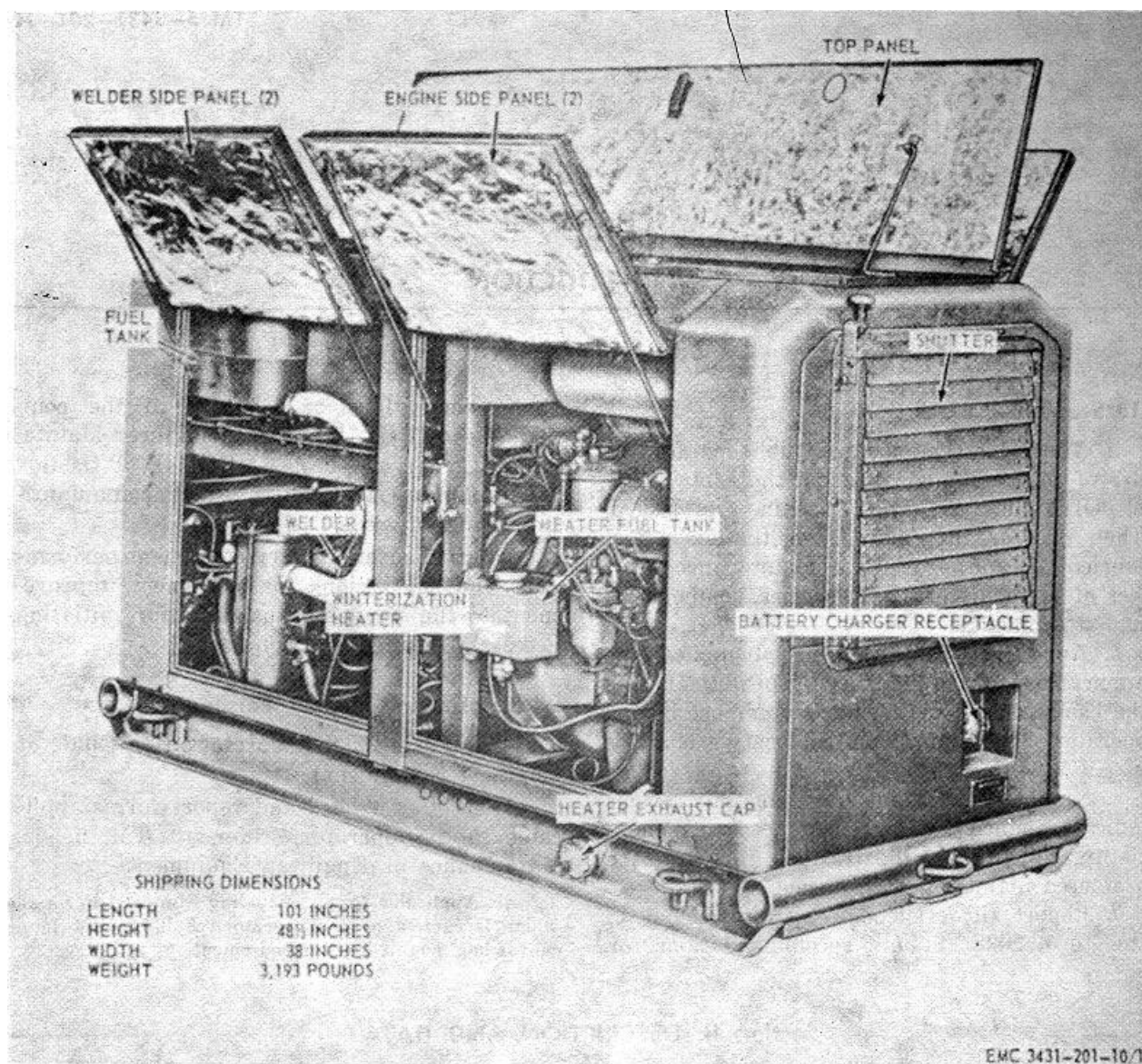


Figure 1. Welding machine, right front, three-quarter view, with shipping dimensions.

frame near front. The welding machine manufacturer's data plate is located on the control panel. The engine manufacturer's plate is located on the valve cover. The welder manufacturer's data plate is located on the right side of the welder. The heater manufacturer's data plate is located on the back of the heater housing.

(1) Corps of Engineers plate A.

Nom. Welding Machine Arc:
 DED Skid Mtd. 300 AMP
 D.C. TM 5-3431-201
 Stock No. 3431-894-1573
 Make Libby
 Mod..... OD3-300
 Date Mfg.
 Ser.
 Contract No.