

TM 5-6115-440-34

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE MANUAL

GENERATOR SET, 7.5KW, 28V, DC,

G.E.D. AIR COOLED, 2 WHEEL

MTD, PNEUMATIC TIRES

JOHN R. HOLLINGSWORTH

MODEL JHGV7.5A

FSN 6115-074-6396

HEADQUARTERS, DEPARTMENT OF THE ARMY

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* This manual supersedes the direct support and general support portion of TM 5-6115-440-15, 17 June 1968, including all changes.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. These instructions are published for use by personnel to whom the John R. Hollingsworth Co. Model JHGV 7.5 generator is issued. Chapter 1 and 2 provides information on troubleshooting and direct and general support maintenance instructions: Also included are description of main units and their functions in relationship to other components.

b. Numbers in parenthesis following nomenclature callouts on illustrations indicate quantity; numbers preceding nomenclature callouts indicate preferred sequence.

1-2. Forms and Records

Maintenance forms, records and reports which are to be used by maintenance personnel at all maintenance levels are listed and prescribed by TM 38-750.

1-3. Reporting of Errors

Report 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 Publications) and forwarded, direct to Commanding General U.S. Army Mobility Equipment Command, ATTN: AMSME-MPP, 4300 Goodfellow Blvd. St. Louis, Mo. 63120.

Section II. DESCRIPTION AND DATA

1-4. Description

A complete description of the 7.5 KW John R. Hollingsworth, Model JHGV7.5A generator set is described in TM 5-6115-440-20.

1-5. Difference between Models

This manual covers only the John R. Hollingsworth Co., Model JHGV7.5A generator set. No known unit differences exist for the model covered by this manual.

1-6. Tabulated Data

a. Starter Generator Classification and Rating.

Type	Short Shunt
Rated Current	300 amp
Output voltage (dc)	30v
Regulated field current	8 amp max
Lubrication	Grease lubricated
Drive	Belt drive
Cooling	Internal fan
Duty classification	Continuous

b. Starter Generator Repair Standards.

Stator:

Number of main field Poles	6
Number of interpoles	6
Pole shoe type	Laminated
Wire size	No. 17 AWG

Type of wire	Heavy Thermaleze
Insulating materials	Vacuum impregnated high temperature varnish
Lead connections	Silver brazed (MIL-B-7883)

Armature:

Number of slots	49
Number of coils	49
Type of wire	Heavy thermaleze
Wire size	.091 x .236
Insulating materials	Vacuum impregnated high temperature varnish
Armature core	Laminated
Coil connections	Silver brazed (MIL-B-7883)

c. Torque Data.

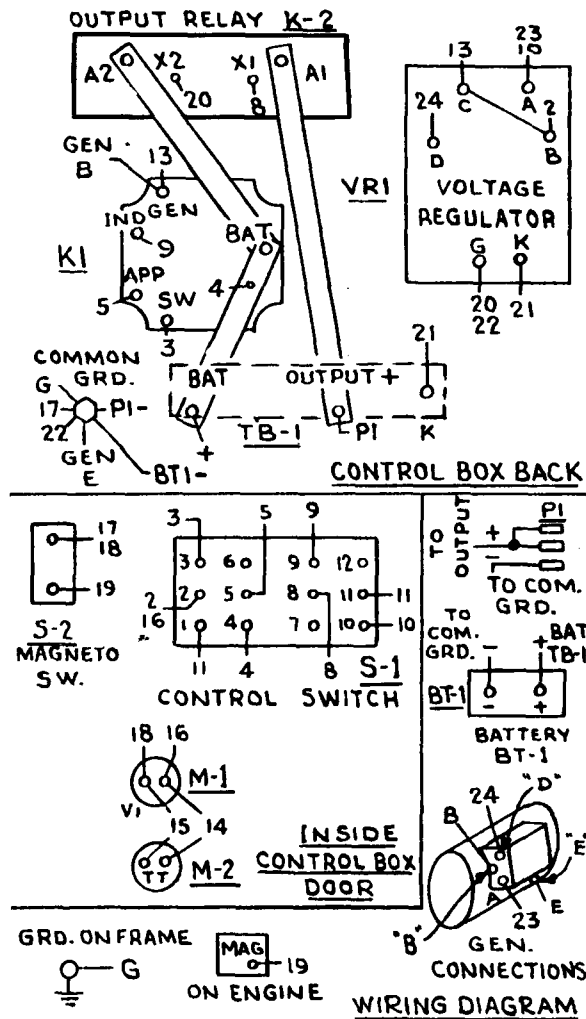
Spark plug	25—30 ft-lb
Cylinder head screws	22—24 ft-lb
Gear cover cap screws	14—18 ft-lb
Oil pan mounting screws	6—9 ft-lb
Cylinder block mounting nuts	40—50 ft-lb
Connecting rod nuts	22—24 ft-lb
Main bearing plate cap screws	25—30 ft-lb
Manifold mounting nuts	23 ft-lb (max).

d. *Repair and Replacement Standards.* Table 1-1 lists manufacturer's sizes, tolerances, desired clearances, and maximum allowable wear and clearances.

Table 1-1. Repair and Replacement Standards

Component	Manufacturer's dimensions and tolerances in inches		Desired clearances		Max allowable wear and clearance
	Minimum	Maximum	Minimum	Maximum	
Engine:					
Piston to cylinder clearance at piston skirt thrust faces			0.0032	0.0042	
Piston ring gap (compressed)			0.010	0.020	
Piston ring side clearance in grooves:					
Top ring			0.002	0.004	
Scraper ring			0.0015	0.0035	
Oil ring			0.000	0.003	
Connecting rod to crank pin side clearance			0.009	0.016	
Connecting rod shell bearing to crank pin clearance			0.0005	0.0020	
Piston pin to piston clearance			0.0000	0.0003	
Piston pin to connecting rod bushing clearance			0.0003	0.0006	
NOTE					
The thrust face on the piston skirt is 90° from the axis of the piston pin hole.					

e. Wiring Diagram. See figure 1-1 and 1-2 for wiring diagrams of generator set.



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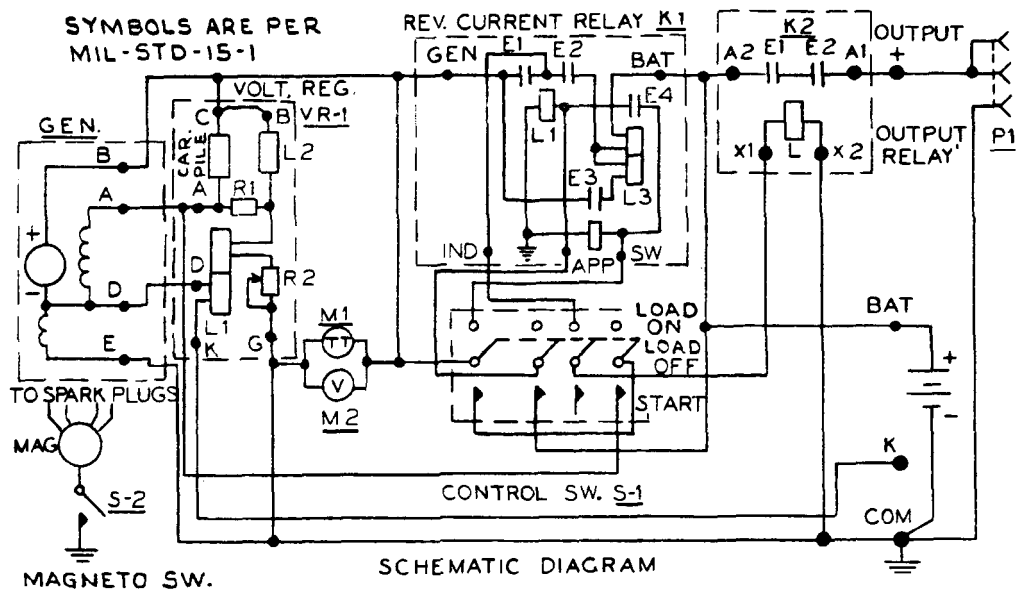


Figure 1-2. Schematic wiring diagram.