

D E P A R T M E N T O F T H E A R M Y T E C H N I C A L M A N U A L

TECHNICAL MANUAL

DIRECT AND GENERAL SUPPORT

MAINTENANCE MANUAL

MIXER, CONCRETE, 4 WHEEL TRAILER MOUNTED,

GASOLINE ENGINE DRIVEN, NON TILT, 16 CU. FT.

(T. L. SMITH COMPANY MODEL 499A)

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope.

a. This manual contains instructions for the use of direct and general support maintenance personnel maintaining the T.L. Smith Concrete Mixer as allocated by the Maintenance Allocation Chart. It provides information on the maintenance of the equipment which is beyond the scope of the tools, equipment, personnel, or supplies normally available to using organizations.

b. Appendix A contains a list of publications applicable to this manual.

1-2. Maintenance Forms and Records

DA forms and procedures used for equipment

maintenance will be only those prescribed by TM 38-750, The Army Maintenance Management System.

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-MP, 4300 Goodfellow Blvd., St. Louis, Mo. 63120.

Section II. DESCRIPTION AND TABULATED DATA

1-4. Description

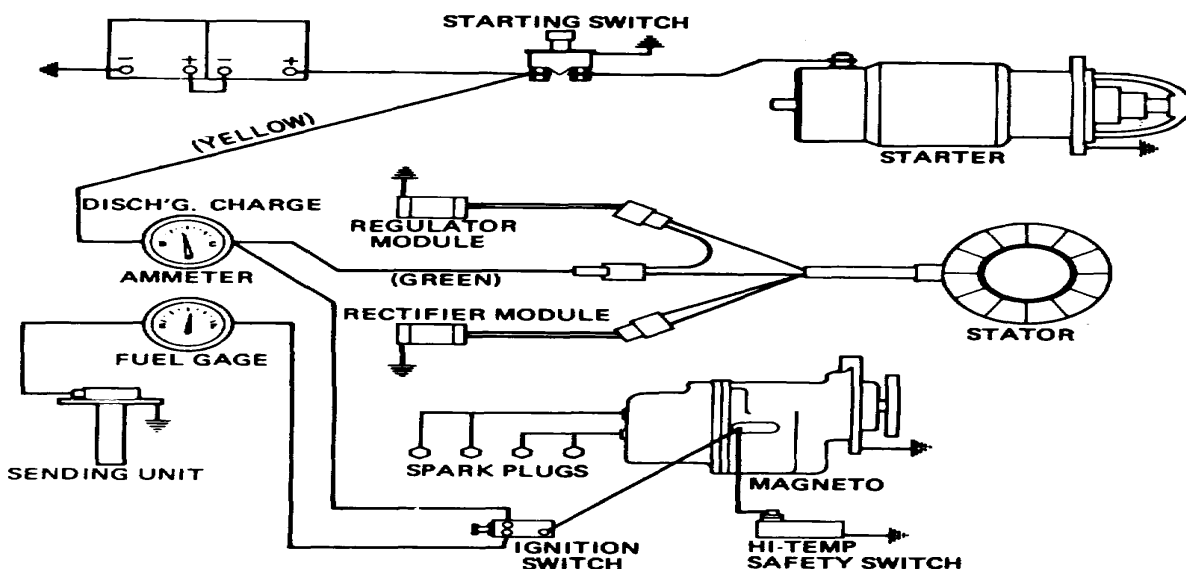
A general description of the T. L. Smith Concrete Mixer is contained in TM 5-3895-342-12.

1-5. Differences Between Models

This manual covers only the T. L. Smith Concrete Mixer, Model 499A. No differences exist within the serial number range covered in this manual. The serial number range covered in this manual is: 76900 to 77058

1-6. Tabulated Data

a. *General.* Data as to manufacturer and model identification of component is contained in TM 5-3895-342-12. This paragraph contains all maintenance data pertinent to direct and general maintenance personnel. A wiring diagram (fig. 1-1) is also included.



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Figure 1-1. Wiring diagram.

b. *Engine Repair and Rebuild Standard.* Table 1-1 lists manufacturer's sizes, tolerances and maximum allowable wear and clearance.

c. *Nut and Bolt Torque Data.* Table 1-2 provides nut and bolt torque data.

Table 1-1. Engine Repair and Rebuild Data

Component	Manufacturer's dimensions and tolerances in inches		Desired clearance		Maximum allowable wear and clearance
	Minimum	Maximum	Minimum	Maximum	
Camshaft					
No. 1 Journal	1.8725	1.8730			0.002
No. 2 Journal	1.2475	1.2480			0.002
Camshaft bores					
No. 1 Journal	1.875	1.876			0.002
No. 2 Journal	1.250	1.251			0.002
Clearance between camshaft and bore			0.002	0.0035	
Connecting Rod					
Id of installed bushing (crankcase end)	1.8115	1.8125			
Clearance between connecting rod bushing and crankshaft.			0.0019	0.0025	0.003
Side clearance between connecting rod bushing and crankshaft.			0.004	0.011	0.005
Maximum out-of-round of bearing crankshaft end).	0.0005				
Id of piston end	0.9125	0.9130			
Id of installed bushing (piston end)	0.8594	0.8597			0.001
Interference of bushing to id of rod			0.0025	0.0055	
		1-2			