TABLE OF CONTENTS

1	DESCRIPTION AND OPERATION		LUBRICATION COMPLETE UNIT	
			Throttle Cable	4-5
	BRIEF HISTORY	1-1	Steering Cable	4-5
	PRINCIPLES OF OPERATION	1-2	Oil Tank and Filter	4-8
	ENGINE AND JET DRIVE	1-3	Jet Pump	4-8
	IMPELLERS	1-4	•	
	REPLACEABLE PARTS	1-6	INSPECTION AND SERVICE	4-9
	DEBRIS REMOVAL AND		Fuel Check Valve and	
	ENGINE OVERHEATING	1-7	Oil Tank Check Valve	4-9
	REVERSE CAPABILITY 1-7		IMPELLER-TO-IMPELLER HOUSING	
	TEST TANKS	1-8	WEAR RING CLEARANCE	4-10
			Engine Alignment	4-11
2	SAFETY		PRE-SEASON PREPARATION	4-11
			SEALANT, ADHESIVES, LUBRICANT	
	INTRODUCTION	2-1	AND FUEL STABILIZER	4-13
	MINIMUM LEGAL REQUIREMENTS			4-15
	REGISTRATION OF CRAFT	2-5		4-17
	SAFETY PRACTICES	2-5	Cleaning, Waxing, and	4-15
	BOATING ACCIDENT REPORTS	2-8	Polishing SUBMERGED ENGINE SERVICE	4-15
	SECURITY	2-8		4-15
			Submerged While Running	4-16
-	TITATA		Fresh Water Submersion	4-16
3	TUNING			4-17
	INTRODUCTION	2 1	PRE-SEASON CHECK	4-17
	INTRODUCTION THE UP SECUENCE	3-1	PRE-SEASON CHECK	4-17
	TUNE-UP SEQUENCE	3-1	s TROUBLECHOOTING	
	COMPRESSION CHECK	3-2	5 TROUBLESHOOTING	
	SPARK PLUG INSPECTION	3-3	INTRODUCTION	5-1
	ELECTRICAL POWER SUPPLY	3-3		5-2
	FUEL SYSTEM	3-5	Engine Troubleshooting	5-2
	Carburetor Adjustments	3-5	Troubleshooting Check	5-2
	FUEL PUMPS	3-9	Cranking System Test	_
	CRANKING MOTOR & SOLENOID	3-10	Ignition System Test	5-2
	JET PUMP	3-11	Compression Test	5-3
	ROTARY VALVE	3-12	MECHANICAL ENGINE PROBLEMS	5-4
	MODIFYING FOR		FUEL SYSTEM	5-5
	HIGHER PERFORMANCE	3-13	Engine Surge	5-6
_			Rough Engine Idle	5-6
4	MAINTENANCE		IGNITION SYSTEM	5-6
			Intermittent or Multiple	
	INTRODUCTION	4-1	Problems	5-7
	SERIAL NUMBERS	4-4	SPARK PLUG EVALUATION	5-8

_				
5	TROUBLESHOOTING (Continued)		Troubleshooting	6-39
	CRANKING SYSTEM	5-9	Purging Air from System	6-40
	Faulty Symptoms	5-9	Pump Operational Test	6-41
	Cranking Circuit Tests	5-10	Pump Removal	6-41
	Cranking Motor Solenoid		Pump Installation	6-42
	Testing	5-11	Pump Synchronization	6-42
	Cranking Solenoid Tests	5-12		
	CHARGING SYSTEM	5-12	7 IGNITION	
	TROUBLESHOOTING CHARTS	5-13		
	,		INTRODUCTION AND	
6	FUEL		CHAPTER COVERAGE	7-1
			SPARK PLUG EVALUATION	7-2
	INTRODUCTION	6-1	CDI (CAPACITOR DISCHARGE	
	GENERAL CARBURETION		IGNITION) AND CHARGING	7-4
	INFORMATION	6-1	Description & Operation	7-4
	Diaphragm Carburetors	6-1	Charge Circuit	7-5
	Fuel/Oil Mixture	6-3	Ignition Generating Circuit	7-5
	Air/Fuel Mixture	6-4	Timing Advance	7-5
	Engine RPM Limiter	6-4	Charging System	7-5
	FUEL PUMP	6-5	Troubleshooting Ignition	
	FUEL IN THE SYSTEM	6-5	CDI System	7-5
	Leaded Gasoline	6-6	Spark Plugs	7-6
	Removing Fuel from System	6-6	Compression	
	Long Time Storage	6-7	Troubleshooting Charging	
	Short Time Storage	6-7	System	7-7
	TROUBLESHOOTING	6-7	TESTING IGNITION COMPONENTS	7-7
	Fuel Filter and		General Information	7-7
	Sediment Bowl Service	6-7	Intermittent or Multiple	
	Choke Problems	6-8	Problems	7-8
	Rough Engine Idle	6-8	Magneto Assembly	
	Excessive Fuel Consumption	6-8	Resistance Tests	7-9
	Engine Surge	6-9	Generating Coil	7-9
	MIKUNI CARBURETOR	6-9	Battery Charging Coil	7-10
	Removal Single	0.7	Ignition Coil	7-10
	and Dual Carburetors	6-9	CHARGING CIRCUIT	7-10
	Disassembling	6-13	General Information	7-10
	Cleaning & Inspecting	6-16	Charging Circuit	, 10
	Assembling	6-16	Output Tests	7-11
	Fuel Pump Assembling	6-21	Ignition Module Test	7-12
	Installation Single	0-21	FLYWHEEL AND MAGNETO	7-12
	and Dual Carburetors	6-23	"Pulling" the Flywheel	7-13
	FUEL ADJUSTMENTS	6-25	Stator Plate Cover Removal	7-13
	Throttle Cable	6-30	Stator Plate and Magneto	,-10
	Low Speed Mixture		Assembly Removal	7-15
		6-31	Generating Coil	7-17
	Idle Speed Choke Cable	6-31	Removal & Installation	7-15
	REMOTE FUEL PUMP	6-32	Battery Charging Coil	7-17
		6-33	Removal & Installation	7-16
	Theory of Operation	6-33	CLEANING AND INSPECTING	7-16
	Pressure Check	6-34		
	Volume Check	6-34	ASSEMBLING AND INSTALLATION	7-17
	Rough Engine Idle	6-34	Magneto Assembly	
	Removal & Disassembling	6-36	Flywheel IGNITION TIMING ADJUSTMENTS	7-18
	Cleaning & Inspecting	6-36		7-19
	Assembling	6-36	Timing Marks	7-19
	OIL INJECTION	6-37	Timing Procedure	7-20
	Oil Mixture	6-38	Dynamic Timing Check	7-20
	System Components	6-38	Adjusting Timing	7-20

	·			
8	ENGINE		Cleaning & Inspecting	9-10
			Testing Parts	9-13
	INTRODUCTION AND		Assembling	9-20
	CHAPTER ORGANIZATION	8-1	Installation	9-2
	Repair Procedures	8-1	TESTING OTHER COMPONENTS	9-2
	Torque Values	8-1	Stop "Kill" Switch	9-2
	Cleanliness	8-1	Tether Switch	9-25
	TWO-STROKE ENGINE		Overheat Buzzer	9-25
	DESCRIPTION AND OPERATION	8-2	Thermosensor	9-25
	Lubrication	8-2		
	ACTUAL OPERATION		10 JET PUMP	
	TWO-STROKE ENGINE	•		
	WITH ROTARY VALVE	8-2	INTRODUCTION	10-1
	TIMING TWO-STROKE ENGINE	8-3	PRINCIPLES OF OPERATION	10-1
	ENGINE SERVICE	8-3	EDUCATIONAL INFORMATION	10-1
	Preliminary Tasks	8-3	ENGINE AND JET DRIVE	10-2
	ENGINE DISASSEMBLING		IMPELLERS	10-3
	Cylinder Head	8-4	CHECKING IMPELLER TO	
	Rotary Valve and		WEAR RING CLEARANCE	10-5
	Oil Injection Pump	8-5	JET PUMP SERVICE	10-6
	Rotary Backlash Check	8-13	PUMP REMOVAL	
	Stator Plate and		AND DISASSEMBLING	10-6
	Magneto Assembly	8-16	Impeller Removal	10-11
	Rotary Valve Service	8-22	Wear Ring Removal	10-13
	CLEANING AND INSPECTING	8-23	Seal Carrier Service	10-14
	Crankshaft Service	8-23	CLEANING AND INSPECTING	10-14
	Connecting Rod Service	8-24	Driveshaft Runout	10-15
	Piston Service	8-24	Impeller Shaft	10-12
	Cylinder Block Service	8-28	Radial "Play"	10-16
	Sealant, Adhesives,	0-20	Impeller Shaft	1010
	Lubricants, & Fuel		End "Play"	10-16
	Stabilizers	8-31	PUMP ASSEMBLING	10-10
	ENGINE ASSEMBLING	0-J1	Seal Carrier	10-17
	Rotary Valve Shaft	8-33	Impeller Housing Bearing	10 17
	Crankshaft	8-34	and Seal Installation	10-18
	Rotary Valve	8-42	Wear Ring Installation	10-19
	ENGINE INSTALLATION	8-43	Impeller Installation	10-20
	Engine Buildup	8-44	Driveshaft Assembling	10-21
	Oil Pump Synchronization	8-49	Diffestial CAssembling	10-21
	Cylinder Head Installation	8-49		
	Closing Tasks	8-52	11 CONTROL ADJUSTMENTS	
	BREAK-IN PROCEDURES	8-53	11 CONTROL ADJOST MENTS	
	Ditailit III I I Comb of an	0 ,,	INTRODUCTION	11-1
			STEERING CABLE ADJUSTMENT	11-1
9	ELECTRICAL		REVERSE CAPABILITY	11-3
			REVERSE CABLE ADJUSTMENT	11-4
	INTRODUCTION	9-1	REVERSE CABLE ADJUST MENT	11-4
	BATTERIES	9-1		
	TACHOMETER	9-8	APPENDIX	
	ELECTRICAL SYSTEM	<i>)</i> -0	111 1 31 1 50 1 7 1	
	GENERAL INFORMATION	9-8	METRIC CONVERSION CHART	A-1
	CRANKING MOTOR CIRCUIT	9-9	DRILL CONVERSION CHART	A-2
	Troubleshooting	9-10	ENGINE SPECIFICATIONS	A-3
	Cranking Motor Solenoid	9-12	WIRING IDENTIFICATION DWGS.	A-4
	CRANKING MOTOR SERVICE	9-13	DEGREE WHEEL FOR	Λ-4
	Removal	9-13	ROTARY VALVE TIMING	A-6
	Disassembling	9-14	OTHER SELOC MANUALS	A-8
	LAMAGERICANIE	/ 17	V A A A A A A A A A A A A A A A A A A A	/ 1 / 1