

CONTENTS

1	GENERAL INFORMATION, SAFETY AND TOOLS	HOW TO USE THIS MANUAL	1-2		
		BOATING SAFETY	1-4		
		SAFETY IN SERVICE	1-11		
		TROUBLESHOOTING	1-12		
		TOOLS AND EQUIPMENT	1-16		
		TOOLS	1-18		
		SPECIFICATIONS	1-27		
2	MAINTENANCE	GENERAL INFORMATION (WHAT EVERYONE SHOULD KNOW ABOUT MAINTENANCE)	2-2		
		LUBRICATION SERVICE	2-6		
		ENGINE MAINTENANCE	2-13		
		BOAT MAINTENANCE	2-36		
		TUNE-UP	2-39		
		TIMING AND SYNCHRONIZATION	2-48		
		STORAGE (WHAT TO DO BEFORE AND AFTER)	2-71		
		CLEARING A SUMERGED MOTOR	2-74		
		SPECIFICATIONS	2-76		
		3	FUEL SYSTEM	FUEL SYSTEM BASICS	3-2
				FUEL TANK AND LINES	3-6
CARBURETED FUEL SYSTEM	3-11				
FICHT FUEL INJECTION (FFI)	3-44				
SPECIFICATIONS	3-96				
4	IGNITION AND ELECTRICAL SYSTEMS	UNDERSTANDING AND TROUBLESHOOTING			
		ELECTRICAL SYSTEMS	4-2		
		IGNITION SYSTEMS - CARBURETED ENGINES	4-8		
		IGNITION SYSTEMS - FICHT ENGINES	4-29		
		CHARGING CIRCUIT	4-33		
		STARTING CIRCUIT	4-49		
		WARNING SYSTEM	4-73		
		WIRING DIAGRAMS	4-78		
SPECIFICATIONS	4-121				
5	LUBRICATION AND COOLING	VARIABLE RATIO (VR02) SYSTEM (CARBURETED ENGINES)	5-2		
		FICHT OIL INJECTION SYSTEM (FFI MOTORS)	5-11		
		COOLING SYSTEM	5-23		
		COOLING SYSTEM SCHEMATICS	5-33		

CONTENTS

POWERHEAD POWERHEAD BREAK-IN EXPLODED VIEWS POWERHEAD SPECIFICATIONS	6-2 6-28 6-29 6-29	ENGINE MECHANICAL	6
GEARCASE JET DRIVE	7-2 7-30	GEARCASE	7
TRIM/TILT SYSTEMS TRIM/TILT WIRING	8-2 8-23	TRIM/TILT SYSTEMS	8
REMOTE CONTROLS CONTROL CABLES	9-2 9-15	REMOTE CONTROLS	9
HAND REWIND STARTER	10-2	HAND REWIND STARTER	10
GLOSSARY	10-13	GLOSSARY	
MASTER INDEX	10-17	MASTER INDEX	

AIR INTAKE SILENCER	3-68
REMOVAL & INSTALLATION	3-69
ANODES (ZINCS)	2-33
BATTERY	4-48
BATTERY CONSTRUCTION	4-48
BATTERY LOCATION	4-49
BATTERY RATINGS	4-49
BATTERY SERVICE	4-49
MAINTENANCE	2-36
MARINE BATTERIES	4-48
STORAGE	2-38
TESTING	2-37
BOAT MAINTENANCE	2-36
BATTERIES	2-36
FIBERGLASS HULL	2-38
BOATING SAFETY	1-4
COURTESY MARINE EXAMINATIONS	1-11
EQUIPMENT NOT REQUIRED	
BUT RECOMMENDED	1-10
REGULATIONS FOR YOUR BOAT	1-4
REQUIRED SAFETY EQUIPMENT	1-5
CAPACITOR	3-94
CARBURETOR-65 JET-115 HP (1632CC)	
90CV4 MOTORS	3-15
DESCRIPTION	3-15
OVERHAUL	3-16
REMOVAL & INSTALLATION	3-15
CARBURETOR-80 JET-175 HP (1726/2589CC)	
60LV4/V6 MOTORS	3-18
CARBURETOR MIXTURE ADJUSTMENT	3-25
DESCRIPTION	3-18
OVERHAUL	3-21
REMOVAL & INSTALLATION	3-20
CARBURETOR-120-300 HP (2000/3000/4000CC)	
90LV4/V6/V8 MOTORS	3-25
CARBURETOR MIXTURE ADJUSTMENT	3-30
DESCRIPTION	2-25
OVERHAUL	3-27
REMOVAL & INSTALLATION	3-25
CARBURETED FUEL SYSTEM	3-11
CAPACITOR	3-94
CARBURETOR-65 JET-115 HP (1632CC)	
90CV4 MOTORS	3-15
CARBURETOR-80 JET-175 HP (1726/2589CC)	
60LV4/V6 MOTORS	3-18
CARBURETOR-120-300 HP (2000/3000/4000CC)	
90LV4/V6/V8 MOTORS	3-25
DESCRIPTION AND OPERATION	3-11
ELECTRIC FUEL PRIMER	3-34
FFI MAIN SYSTEM RELAY	3-94
FUEL COMPONENT BRACKET	3-38
FUEL PUMP	3-30
MANUAL FUEL PRIMER	3-33
RECIRCULATION HOSE ROUTING	3-43
RECIRCULATION SYSTEM	3-41
TROUBLESHOOTING	3-12
CHARGE COIL	4-14
REMOVAL & INSTALLATION	4-15
TESTING	4-14
CHARGING CIRCUIT	4-33
BATTERY	4-48
CHARGING SYSTEM IDENTIFICATION	4-34
GENERAL INFORMATION	4-33
RECTIFIER	4-42
REGULATOR/RECTIFIER	4-44
STATOR/BATTERY CHARGE COIL	4-38
TESTING	4-36
TROUBLESHOOTING	4-35
CIRCULATION PUMP	3-75
REMOVAL & INSTALLATION	3-76
TESTING	3-76
CLEARING A SUBMERGED MOTOR	2-74
COMPRESSION CHECK	2-41
CONTROL CABLES	9-15
RIGGING	9-15
COOLING SYSTEM	5-23
DESCRIPTION AND OPERATION	5-24
FLUSHING THE COOLING SYSTEM	2-18
PRESSURE RELIEF VALVE	5-27
TESTING COOLING SYSTEM	5-25
TESTING THE THERMOSTAT	5-25
THERMOSTAT	5-27
TROUBLESHOOTING	5-24
WATER PUMP	5-29
COOLING SYSTEM SCHEMATICS	5-33
65 JET-115 HP (1632CC) 90CV4 MOTORS	5-33
75-115 HP (1726CC) 60LV4 MOTORS	5-33
75-115 HP (1726CC) 60LV4 MOTORS (FICHT)	5-34
120-140 HP (2000CC) 90LV4 MOTORS	5-35
105 JET-175 HP (2589CC) 60LV6 MOTORS	5-35
150-175 HP (2589CC) 60LV6 MOTORS	
WITH HARD FUEL RAILS (FICHT)	5-34
185-250 HP (3000/3300CC) 90LV6 MOTORS	5-36
200-250 HP (3000/3300CC) 90LV6 MOTORS	
(FICHT)	5-37
250/300 HP (4000CC) 90LV8 MOTORS	5-38
CRANKSHAFT POSITION (CP) SENSOR	3-87
REMOVAL & INSTALLATION	3-88
TESTING	3-88

10-18 MASTER INDEX

DIAGNOSTIC CHARTS	3-52	FLAME ARRESTER	3-68
ALL 75-250 HP MOTORS,		FUEL FILTER WATER SENSOR	3-94
EXCEPT 150/175 HP WITH FUEL RAILS	3-52	FUEL INJECTORS	3-82
150/175 HP WITH FUEL RAILS	3-55	FUEL PRESSURE REGULATOR	3-94
ELECTRIC FUEL PRIMER	3-34	FUEL VAPOR SEPARATOR	3-75
ASSEMBLY	3-36	HIGH PRESSURE FUEL PUMP	3-75
DISASSEMBLY	3-36	LIFT PUMP	3-70
INSTALLATION	3-37	LOW PRESSURE FUEL PUMP	3-70
PRIMER TESTING	3-34	PIN CHARTS	3-62
REMOVAL	3-35	PRESSURE SENSORS	3-92
SOLENOID & CIRCUIT CHECK	3-35	SELF-DIAGNOSTIC SYSTEM	3-49
ENGINE COVERS (TOP AND LOWER CASES)	2-13	SHIFT INTERRUPT SWITCH	3-92
ENGINE IDENTIFICATION	2-2	TEMPERATURE SENSORS/SWITCHES	3-88
ENGINE MAINTENANCE	2-13	THROTTLE BODY	3-70
ANODES (ZINCS)	2-33	THROTTLE POSITION (TP) SENSOR	3-91
COOLING SYSTEM	2-18	TROUBLESHOOTING	3-47
ENGINE COVERS (TOP AND LOWER CASES)	2-13	FIGHT OIL INJECTION SYSTEM	5-11
FUEL FILTER	2-27	CHECKING THE FFI OILING SYSTEM	5-12
FLUSHING THE COOLING SYSTEM	2-18	DESCRIPTION AND OPERATION	5-12
JET DRIVE IMPELLER	2-32	FFI OILING SYSTEM TROUBLESHOOTING	5-12
LOWER UNIT (GEARCASE) OIL	2-25	OIL COMPONENT ASSEMBLY	5-18
POWER STEERING BELT	2-35	OIL SYSTEM COMPONENT	
PROPELLER	2-30	TESTING PROCEDURES	5-17
2-STROKE ENGINE OIL	2-23	FILTER MODULE	3-94
ENGINE MANAGEMENT MODULE	3-93	TESTING	3-94
REMOVAL & INSTALLATION	3-93	FLAME ARRESTER	3-68
ENGINE TEMPERATURE		REMOVAL & INSTALLATION	3-69
SENSORS/SWITCHES	4-76	FLYWHEEL	6-2
FIGHT ENGINES ONLY	4-76	REMOVAL & INSTALLATION	6-2
ENGINE TEMPERATURE SWITCHES	4-76	FUEL COMPONENT BRACKET	3-38
CARBURETED ENGINES ONLY	4-76	ASSEMBLY	3-39
REMOVAL & INSTALLATION	4-77	CLEANING AND INSPECTING	3-39
TESTING	4-76	DISASSEMBLY	3-38
FASTENERS, MEASUREMENTS		INSTALLATION	3-40
AND CONVERSIONS	1-25	REMOVAL	3-38
BOLTS, NUTS AND OTHER		FUEL FILTER	2-27
THREADED RETAINERS	1-25	CARBURETED MOTORS	2-27
STANDARD AND METRIC MEASUREMENTS	1-26	FUEL INJECTED MOTORS	2-29
TORQUE	1-26	FUEL SYSTEM PRESSURE	2-29
FIGHT FUEL INJECTION (FFI)	3-44	FUEL FILTER AND WATER SEPARATOR	2-29
AIR INTAKE SILENCER	3-68	FUEL FILTER WATER SENSOR	3-94
CIRCULATION PUMP	3-75	TESTING	3-94
CRANKSHAFT POSITION (CP) SENSOR	3-87	FUEL INJECTION (FFI)	3-44
DESCRIPTION AND OPERATION	3-44	FUEL INJECTORS	3-82
DIAGNOSTIC CHARTS	3-52	REMOVAL & INSTALLATION	3-83
ECM PINOUTS/CIRCUIT CHECKS	3-61	TESTING	3-82
ENGINE MANAGEMENT MODULE	3-93	FUEL LINES AND FITTINGS	3-8
FIGHT COMPONENT TESTING	3-62	SERVICE	3-9
FILTER MODULE	3-94	TESTING	3-8

FUEL PRESSURE REGULATOR	3-94	OUTBOARDS ON SAIL BOATS	2-2
FUEL PRIMER (ELECTRIC)	3-34	MAINTENANCE COVERAGE IN THIS MANUAL	2-2
ASSEMBLY	3-36	ENGINE IDENTIFICATION	2-2
DISASSEMBLY	3-36	BEFORE/AFTER EACH USE	2-4
INSTALLATION	3-37	HAND REWIND STARTER	10-2
PRIMER TESTING	3-34	INTRODUCTION	10-2
REMOVAL	3-35	MANUAL STARTER ASSEMBLY-80 JET-115 HP	
SOLENOID & CIRCUIT CHECK	3-35	(1726CC) 60LV4 MOTORS	10-2
FUEL PRIMER (MANUAL)	3-33	MANUAL STARTER ASSEMBLY-120-140 HP	
SERVICING	3-33	(2000CC) 90LV4 MOTORS	10-7
TESTING	3-33	SERVICE	10-2
FUEL PUMP	3-30	HOW TO USE THIS MANUAL	1-2
HIGH PRESSURE FUEL PUMP	3-75	AVOIDING THE MOST	
LOW PRESSURE FUEL PUMP	3-70	COMMON MISTAKES	1-3
OVERHAUL	3-32	AVOIDING TROUBLE	1-2
REMOVAL & INSTALLATION	3-31	CAN YOU DO IT?	1-2
TESTING	3-31	DIRECTIONS AND LOCATIONS	1-2
FUEL SYSTEM BASICS	3-2	MAINTENANCE OR REPAIR?	1-2
FUEL	3-2	PROFESSIONAL HELP	1-3
FUEL SYSTEM SERVICE CAUTIONS	3-2	PURCHASING PARTS	1-3
FUEL SYSTEM PRESSURIZATION	3-5	WHERE TO BEGIN	1-2
FUEL TANK	3-6	IGNITION COILS - CARBURETOR	4-24
SERVICE	3-7	DESCRIPTION & OPERATION	4-24
FUEL TANK AND LINES	3-6	REMOVAL & INSTALLATION	4-26
FUEL LINES AND FITTINGS	3-8	TESTING	4-25
FUEL TANK	3-6	IGNITION COILS - FICHT	4-30
FUEL VAPOR SEPARATOR	3-75	DESCRIPTION & OPERATION	4-30
REMOVAL & INSTALLATION	3-76	REMOVAL & INSTALLATION	4-32
TESTING	3-76	TESTING	4-31
GEARCASE	7-2	IGNITION MODULE	4-22
CHECKING OIL LEVEL & CONDITION	2-25	REMOVAL & INSTALLATION	4-23
DEALING WITH A FROZEN PROPELLER ✓	7-4	TESTING	4-22
DESCRIPTION AND OPERATION	7-2	IGNITION SYSTEMS	4-8
DRAINING AND FILLING	2-26	CABURETED ENGINES	4-8
GENERAL INFORMATION	7-2	FICHT ENGINES	4-29
TROUBLESHOOTING	7-3	IGNITION SYSTEMS-CABURETED ENGINES	4-8
GEARCASE ASSEMBLY	7-5	CHARGE COIL	4-14
FUNCTIONAL CHECK	7-29	DESCRIPTION AND OPERATION	4-8
OIL RECOMMENDATIONS	2-25	IGNITION COILS	4-24
REMOVAL & INSTALLATION	7-5	IGNITION MODULE	4-22
PROPELLER SHAFT SEAL	7-29	POWER COIL	4-16
GEARCASE ASSEMBLY	7-5	POWER PACK	4-22
ASSEMBLY	7-19	SENSOR/TRIGGER COIL	4-17
CLEANING & INSPECTION	7-19	SHIFT SWITCH	4-13
DISASSEMBLY	7-7	TROUBLESHOOTING	4-9
FUNCTIONAL CHECK	7-29	QUIKSTART SYSTEM VERIFICATION	4-27
REMOVAL & INSTALLATION	7-5	IGNITION SYSTEMS-FICHT ENGINES	4-29
GENERAL INFORMATION (WHAT EVERYONE SHOULD		DESCRIPTION AND OPERATION	4-29
KNOW ABOUT MAINTENANCE	2-2	IGNITION COILS	4-30
MAINTENANCE EQUALS SAFETY	2-2	TROUBLESHOOTING	4-30

10-20 MASTER INDEX

INTAKE MANIFOLDS AND LEAF VALVES	6-26	DISASSEMBLY	6-9
REMOVAL, INSPECTION & INSTALLATION	6-26	EXPLODED VIEWS	6-29
JET DRIVE	7-30	FLYWHEEL	6-2
ASSEMBLY	7-36	INTAKE MANIFOLDS AND LEAF VALVES	6-26
CLEANING & INSPECTION	7-35	CLEANING & INSPECTION	6-18
DESCRIPTION & OPERATION	7-30	OVERHAUL	6-9
DISASSEMBLY	7-32	REMOVAL & INSTALLATION	6-4
IMPELLER	7-30	POWERHEAD BREAK-IN	6-28
REMOVAL & INSTALLATION	7-31	CARBURETED MOTORS	6-28
REVERSE GATE	7-36	FFI MOTORS	6-28
JET DRIVE IMPELLER	2-32	PRESSURE RELIEF VALVE	5-27
INSPECTION	2-33	REMOVAL & INSTALLATION	5-27
CHECKING IMPELLER CLEARANCE	2-33	PRESSURE SENSORS	3-92
REMOVAL, SHIMMING & INSTALLATION	7-30	PROPELLER	2-30
LIFT PUMP	3-70	INSPECTION	2-31
OVERHAUL	3-75	REMOVAL & INSTALLATION	2-31
REMOVAL & INSTALLATION	3-71	PROPELLER SHAFT SEAL	7-29
TESTING	3-70	REPLACEMENT	7-30
LOWER UNIT (GEARCASE) OIL	2-25	QUICKSTART SYSTEM VERIFICATION	4-27
CHECKING LOWER UNIT		FUNCTIONAL CHECK	4-28
OIL LEVEL & CONDITION	2-25	RECTIFIER	4-42
DRAINING AND FILLING	2-26	REMOVAL & INSTALLATION	4-43
OIL RECOMMENDATIONS	2-25	TESTING	4-43
LUBRICATION SERVICE	2-6	REGULATOR/RECTIFIER	4-44
ELECTRIC STARTER MOTOR PINION	2-7	REMOVAL & INSTALLATION	4-47
ENGINE COVER LATCHES	2-7	TESTING	4-44
JET DRIVE BEARING	2-7	RELIEVING FUEL SYSTEM PRESSURE	3-5
POWER TRIM/TILT RESERVOIR	2-8	REMOTE CONTROLS	9-2
POWER STEERING FLUID RESERVOIR	2-9	CONCEALED SIDE MOUNT REMOTE UNITS	9-10
LINKAGE, CABLES AND SHAFTS	2-10	DUAL HANDLE SURFACE MOUNT	
STEERING ARM	2-12	REMOTE UNITS FOR SINGLE MOTORS	9-9
SWIVEL BRACKET AND TILT SUPPORT	2-12	INTRODUCTION	9-2
TILT TUBE ASSEMBLY	2-13	PRE-WIRED BINNACLE MOUNT REMOTE UNITS	9-12
MANUAL FUEL PRIMER	3-33	SMALL MOTOR STANDARD SURFACE	
SERVICING	3-33	REMOTE UNITS	9-7
TESTING	3-33	STANDARD SURFACE MOUNT REMOTE UNITS	9-3
OIL COMPONENT ASSEMBLY	5-18	REVERSE GATE	7-36
REMOVAL, OVERHAUL & INSTALLATION	5-18	GATE ADJUSTMENT	7-36
OIL LEVEL SWITCH	4-77	REMOTE CABLE ADJUSTMENT	7-37
POWER COIL	4-16	TILLER SHIFT ROD ADJUSTMENT	7-38
REMOVAL & INSTALLATION	4-17	SAFETY IN SERVICE	1-11
TESTING	4-16	DO'S	1-11
POWER PACK	4-22	DON'TS	1-11
REMOVAL & INSTALLATION	4-23	SELF-DIAGNOSTIC SYSTEM	3-49
TESTING	4-22	MANUALLY CLEARING CODES	3-51
POWER STEERING BELT	2-35	READING CODES	3-49
INSPECTOR	2-35	TROUBLE CODE CHART	3-50
REMOVAL & INSTALLATION	2-35	SENSOR/TRIGGER COIL	4-17
POWERHEAD	6-2	REMOVAL & INSTALLATION	4-20
ASSEMBLY	6-13	TESTING	4-17

SHIFT INTERRUPT SWITCH	3-92
TESTING	3-92
SHIFT SWITCH	4-13
DIODE & CONNECTOR TEST	4-14
ELIMINATION TEST	4-13
SWITCH RESISTANCE TEST	4-13
SPARK PLUGS	2-42
INSPECTION & GAPPING	2-47
READING SPARK PLUGS	2-45
REMOVAL & INSTALLATION	2-44
SPARK PLUG HEAT RANGE	2-43
SPARK PLUG WIRES	2-47
REMOVAL & INSTALLATION	2-48
TESTING	2-47
SPECIFICATIONS	
CAPACITIES	2-81
CARBURETOR SET-UP SPECIFICATIONS	3-96
CONVERSION FACTORS	1-27
ENGINE SPECIFICATIONS-65 JET-115 HP (1632CC) 90° CV4 MOTORS	6-29
ENGINE SPECIFICATIONS-75-175 HP (1726/2589CC) 60° LOOPER V4/V6 MOTORS	6-31
ENGINE SPECIFICATIONS-120-300 HP (2000/3000/4000CC) 90° LOOPER V4/V6/V8 MOTORS	6-35
GENERAL ENGINE SPECIFICATIONS	2-76
GENERAL ENGINE SYSTEM SPECIFICATIONS	2-77
IGNITION TESTING SPECIFICATIONS -	
CARBURETED MOTORS	4-121
LUBRICATION SERVICES	2-80
MAINTENANCE INTERVALS	2-79
METRIC BOLTS-TYPICAL TORQUE VALUES	1-28
SPARK PLUG DIAGNOSIS	2-86
TUNE-UP SPECIFICATIONS	2-82
TWO-STROKE MOTOR FUEL:OIL RATIO	2-80
U.S. STANDARD BOLTS- TYPICAL TORQUE VALUES	1-28
STARTING CIRCUIT	4-49
DESCRIPTION AND OPERATION	4-49
STARTER MOTOR	4-48
STARTER MOTOR SOLENOID/RELAY SWITCH	4-72
TESTING - CARBURETED MODELS	4-51
TESTING - FFI MODELS	4-58
TROUBLESHOOTING	4-51
STARTER MOTOR	4-48
CLEANING AND INSPECTION	4-70
OVERHAUL	4-62
REMOVAL & INSTALLATION	4-60
TESTING	4-59
STARTER MOTOR SOLENOID/RELAY SWITCH	4-72
REMOVAL & INSTALLATION	4-73
TESTING THE SOLENOID	4-72
STATOR/BATTERY CHARGE COIL	4-38
REMOVING & INSTALLATION	4-41
TESTING	4-39
STORAGE (WHAT TO DO BEFORE AND AFTER) ...	2-71
RECOMMISSIONING	2-73
WINTERIZATION	2-71
TEMPERATURE SENSORS/SWITCHES	3-88
REMOVAL & INSTALLATION	3-91
TESTING	3-89
THERMOSTAT	5-27
REMOVAL & INSTALLATION	5-27
THROTTLE BODY	3-70
REMOVAL & INSTALLATION	3-70
THROTTLE POSITION (TP) SENSOR	3-91
REMOVAL & INSTALLATION	3-92
TESTING	3-92
TILT LIMIT SWITCH (FASTRAK ONLY)	8-10
ADJUSTMENT	8-11
TIMING AND SYNCHRONIZATION	2-48
HOMEMADE SYNCHRONIZATION TOOL	2-49
65 JET-115 HP (1632CC) V4 MOTORS	2-50
75-175 HP (1726/2589CC) V4/V6 MOTORS	2-54
120-300 HP (2000/3000/3300/4000CC) V4/V6/V8 MOTORS	2-62
TOOLS	1-18
BATTERY CHARGERS	1-22
BATTERY TESTERS	1-22
DEPTH GAUGES	1-25
DIAL INDICATORS	1-24
ELECTRONIC TOOLS	1-22
GAUGES	1-23
HAMMERS	1-21
HAND TOOLS	1-18
MEASURING TOOLS	1-23
MICROMETERS & CALIPERS	1-23
MULTIMETERS (DVOMS)	1-22
OTHER COMMON TOOLS	1-21
PLIERS	1-21
SCREWDRIVERS	1-21
SPECIAL TOOLS	1-22
SOCKET SETS	1-18
TELESCOPING GAUGES	1-25
WRENCHES	1-20
TOOLS AND EQUIPMENT	1-16
CHEMICALS	1-16
CLEANERS	1-17

10-22 MASTER INDEX

EYE AND EAR PROTECTION	1-16	INTRODUCTION	2-39
LUBRICANTS & PENETRANTS	1-16	SPARK PLUGS	2-42
SAFETY TOOLS	1-16	SPARK PLUG WIRES	2-47
SEALANTS	1-17	TUNE-UP SEQUENCE	2-39
WORK CLOTHES	1-16	IGNITION SYSTEM MAINTENANCE	2-48
WORK GLOVES	1-16	UNDERSTANDING AND TROUBLESHOOTING	
TRIM SENDING UNIT	8-11	ELECTRICAL SYSTEMS	4-2
ADJUSTMENT	8-11	BASIC ELECTRICAL THEORY	4-2
TRIM/TILT ASSEMBLY-		ELECTRICAL COMPONENTS	4-2
FASTRAK® SYSTEMS	8-12	ELECTRICAL SYSTEM PRECAUTIONS	4-8
ASSEMBLY	8-16	ELECTRICAL TESTING	4-6
CLEANING AND INSPECTION	8-16	TEST EQUIPMENT	4-4
DISASSEMBLY	8-14	TROUBLESHOOTING	
OVERHAUL	8-14	ELECTRICAL SYSTEMS	4-6
REMOVAL & INSTALLATION	8-12	WIRE AND CONNECTOR REPAIR	4-8
TRIM/TILT ASSEMBLY-LARGE-MOTOR		VARIABLE RATIO OILING (VRO2) SYSTEM	
CONVENTIONAL SYSTEMS	8-18	(CARBURETED MOTORS)	5-2
ASSEMBLY	8-21	DESCRIPTION AND OPERATION	5-2
DISASSEMBLY	8-18	CHECKING LOW OIL WARNING CIRCUIT	5-2
REMOVAL & INSTALLATION	8-18	CHECKING NO OIL WARNING CIRCUIT	5-2
TRIM/TILT SYSTEMS	8-2	CHECKING VRO2 OIL PUMP DELIVERY	5-4
INTRODUCTION	8-2	TESTING VRO2 FUEL/OIL PUMP CIRCUITS	5-3
GENERAL INFORMATION	8-2	TESTING VRO2 PUMP FOR SELF-PRIMING	5-3
SYSTEM IDENTIFICATION	8-2	TROUBLESHOOTING	5-2
DESCRIPTION AND OPERATION	8-3	VRO2 PICKUP AND OIL SUPPLY HOSE	5-6
TROUBLESHOOTING	8-5	VRO2 PULSE LIMITER	5-6
TILT LIMIT SWITCH (FASTRAK ONLY)	8-10	VRO2 PUMP ASSEMBLY (FUEL AND OIL PUMP) ..	5-7
TRIM SENDING UNIT	8-11	VRO2 PICKUP AND OIL SUPPLY HOSE	5-6
TRIM/TILT ASSEMBLY-		SERVICING	5-6
FASTRAK SYSTEMS	8-12	VRO2 PULSE LIMITER	5-6
TRIM/TILT ASSEMBLY-LARGE-		SERVICING	5-6
MOTOR CONVENTIONAL SYSTEMS	8-18	VRO2 PUMP ASSEMBLY (FUEL AND OIL PUMP)	5-7
WIRING	8-23	OVERHAUL	5-7
TROUBLESHOOTING	1-12	REMOVAL & INSTALLATION	5-7
BASIC OPERATING PRINCIPLES	1-12	WARNING HORN OR BUZZER	4-78
CARBURETED FUEL SYSTEM	3-12	WARNING SYSTEM	4-73
CHARGING CIRCUIT	4-35	DESCRIPTION AND OPERATION	4-73
COOLING SYSTEM	5-24	ENGINE TEMPERATURE	
ELECTRICAL SYSTEMS	4-6	SENSORS/SWITCHES	4-76
FICHT SYSTEM	3-47	ENGINE TEMPERATURE SWITCHES	4-76
GEARCASE	3-47	FUNCTIONAL S.L.O.W. SYSTEM VERIFICATION ..	4-76
IGNITION - CARBURETOR	4-9	OIL LEVEL SWITCH	4-77
IGNITION - FICHT	4-30	TESTING WARNING CIRCUITS	4-74
STARTER CIRCUIT	4-51	TROUBLESHOOTING	4-74
TRIM/TILT	8-5	WARNING HORN OR BUZZER	4-78
VRO2 SYSTEM	5-2	WATER PUMP	5-29
WARNING SYSTEM	4-74	REMOVAL & INSTALLATION	5-29
TUNE-UP	2-39	INSPECTION & OVERHAUL	5-32
COMPRESSION CHECK	2-41	WINTERIZATION	2-71
DECARBONING THE PISTONS	2-40	PREPPING FOR STORAGE	2-72