

**E15 Motor for LX250
Safety, Operation,
Maintenance, & Parts Manual**

130003 Engine Module

rev. B.0

Safety is our #1 concern!

Form #2415

Used with:

LX250E15 rev. A2.04



WARNING! Read and understand this manual before using this machine.

California

Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to www.P65Warnings.ca.gov/wood.

Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: woodmizer.com/patents

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SECTION 1 ABOUT THIS MANUAL

This manual is a supplement to the equipment manufacturer's manuals.

This manual provides information specific to the use of this equipment on the Wood-Mizer® equipment. Refer to the operator's manual and manufacturer's manual before attempting to operate this equipment.

NOTICE Read the sawmill operator's manual and engine manufacturer's manual for instructions and safety precautions before operating this equipment.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

1.1 Safety Symbols

The following symbols and signal words call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.



DANGER! indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.



WARNING! suggests a potentially hazardous situation which, if not avoided, could result in serious injury or death.



CAUTION! refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury or damage to equipment.

SECTION 2 OPERATION

2.1 Starting The Engine

MOTOR CONTROL LIGHTS (SEE FIG. 2-1.)



Alternator Charge Indicator: Lights if the alternator is not charging the battery.



Key Switch Indicator: Lights when the key is in either the ON or ACCESSORY (1 or 3) position.

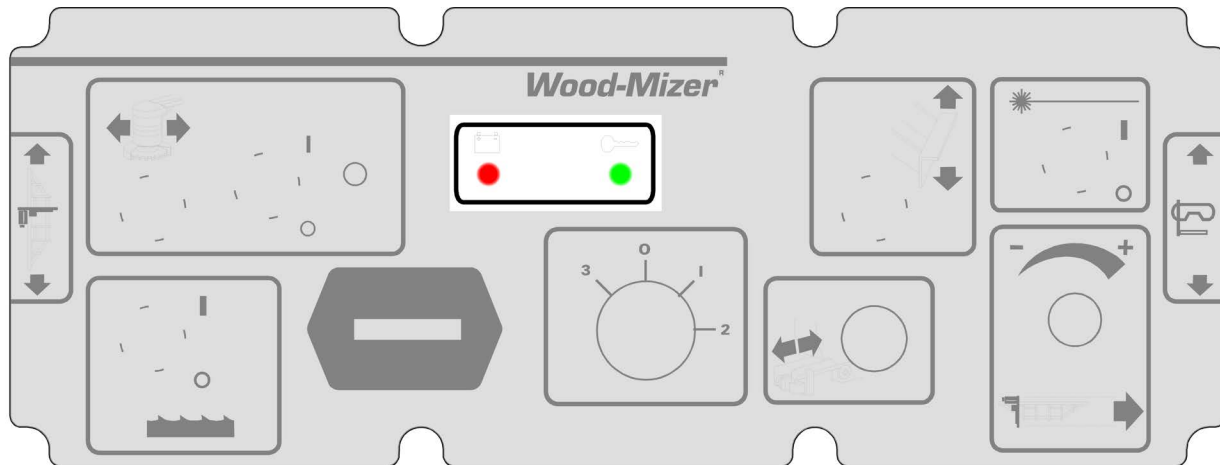


FIG. 2-1

MOTOR START

WARNING! Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the motor. Failure to do so will result in serious injury.

Ensure the power feed switch is in the neutral position before turning the key switch to the ON (1) or ACCESSORY (3) position. This prevents accidental carriage movement.

Turn the key switch to the START (2) position and release.

For more information, see the engine manufacturer's operation manual.

MOTOR SHUTOFF

Turn the key switch to the OFF (0) position.

SECTION 3 MAINTENANCE

Refer to the manufacturer's manual for maintenance intervals and procedures unless otherwise instructed in this manual.

Follow the manufacturer's recommendations for use in dusty conditions.



WARNING! Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather **after every shift**. Failure to do so may result in fire, causing death or serious injury.

3.1 Maintenance Safety

Use caution when performing maintenance or service to the motor.



WARNING! Ensure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

Stay a safe distance from rotating members.

Ensure that loose clothing, jewelry, or long hair does not engage rotating members resulting in possible injury.

Disconnect and lock out power supply before servicing!

Keep all electrical component covers closed and securely fastened during mill operation.

Remove the blade before performing any engine service. Failure to do so may result in serious injury.

3.2 Electrical Lockout Procedures

RULES FOR USING LOCKOUT PROCEDURE

The sawmill shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch or valve bearing a lock.

LOCKOUT PROCEDURES MUST BE USED DURING:

Changing or adjusting blades	Electrical maintenance
Unjamming operations	Retrieval of tools/parts from work area
Cleaning	Activities where guards or electrical panel guard is open or removed
Mechanical repair	

MAINTENANCE HAZARDS INCLUDE:

Blade contact	Missiles (thrown blades/wood chips)
Pinch points	Electrical
Kickbacks	

FAILURE TO LOCKOUT MAY RESULT IN:

Cut	Serious injury and death
Crush	Amputation
Blindness	Burn
Puncture	Shock
Electrocution	

TO CONTROL MAINTENANCE DANGERS:

- Lockout procedures must be followed (see OSHA regulation 1910.147).
- Never rely on machine stop control for maintenance safety (emergency stops, on/off buttons, interlocks).
- Do not reach into moving blades or feed systems. Allow all coasting parts to come to a complete stop.
- Electrical power supply and air supply must both be locked out.
- Where established lockout procedures cannot be used (electrical troubleshooting or mechanical dynamic troubleshooting), alternative effective protective techniques shall be employed which may require special skills and planning.
- Always follow safe operations practices in the workplace.

SAWMILL LOCKOUT PROCEDURE

Lockout procedures per OSHA regulation 1910.147, appendix A:

GENERAL

The following simple lockout procedure is provided to assist owner/operators in developing their procedures so they meet the requirements of OSHA regulation 1910.147. When the energy isolating devices are not lockable, tagout may be used, provided the owner/operator complies with the provisions of the standard which require additional training and more rigorous periodic inspections. When tagout is used and the energy isolating devices are lockable, the owner/operator must provide full operator protection (see OSHA regulation 1910.147, paragraph (c)(3)) and additional training and more rigorous periodic inspections are required. For more complex systems, more comprehensive procedures may need to be developed, documented, and utilized.

PURPOSE

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before personnel perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.


COMPLIANCE WITH THIS PROGRAM

All personnel are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized personnel are required to perform the lockout in accordance with this procedure. All operators, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

SEQUENCE OF LOCKOUT

1. Notify all affected personnel that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
4. De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
5. Lock out the energy isolating device(s) with assigned individual lock(s).

6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

 **CAUTION!** Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

RESTORING EQUIPMENT TO SERVICE

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
2. Check the work area to ensure that all personnel have been safely positioned or removed from the area.
3. Verify that the controls are in neutral.
4. Remove the lockout devices and re-energize the machine or equipment.

NOTE: The removal of some forms of blocking may require re-energization of the machine before safe removal.

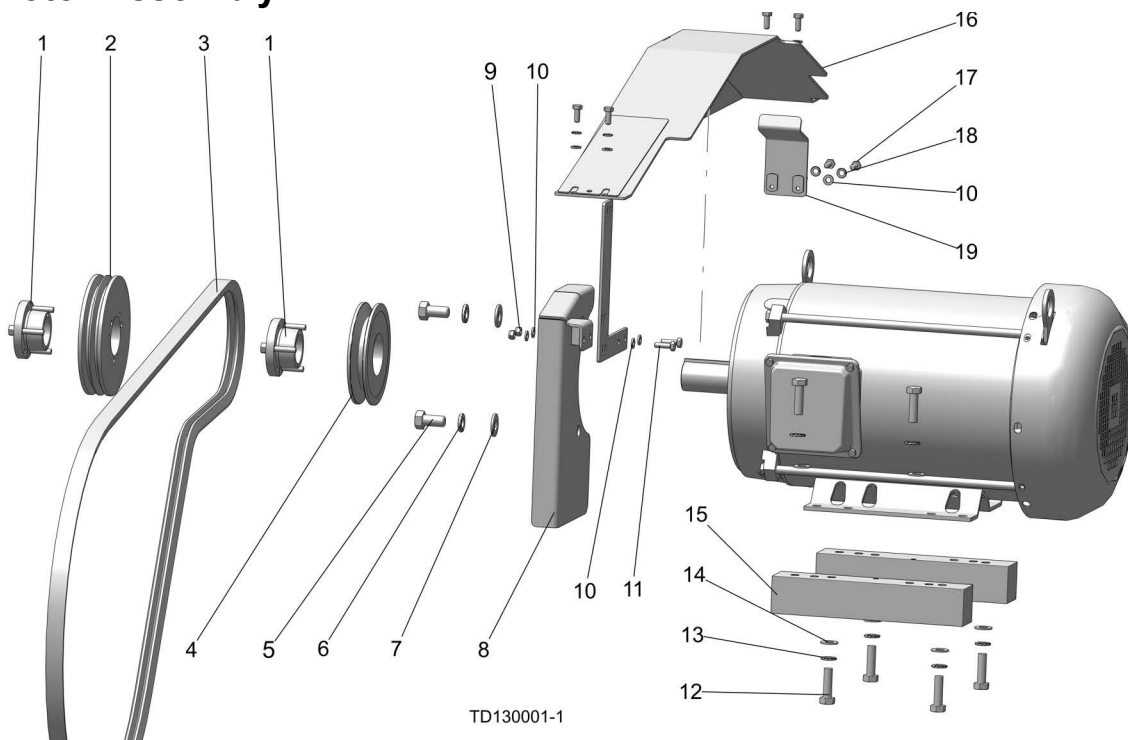
5. Notify affected personnel that the servicing or maintenance is completed and the machine or equipment is ready for use.

PROCEDURE INVOLVING MORE THAN ONE PERSON

In the preceding steps, if more than one individual is required to lock out the sawmill, **each shall place his own personal lock on the energy isolating devices.**

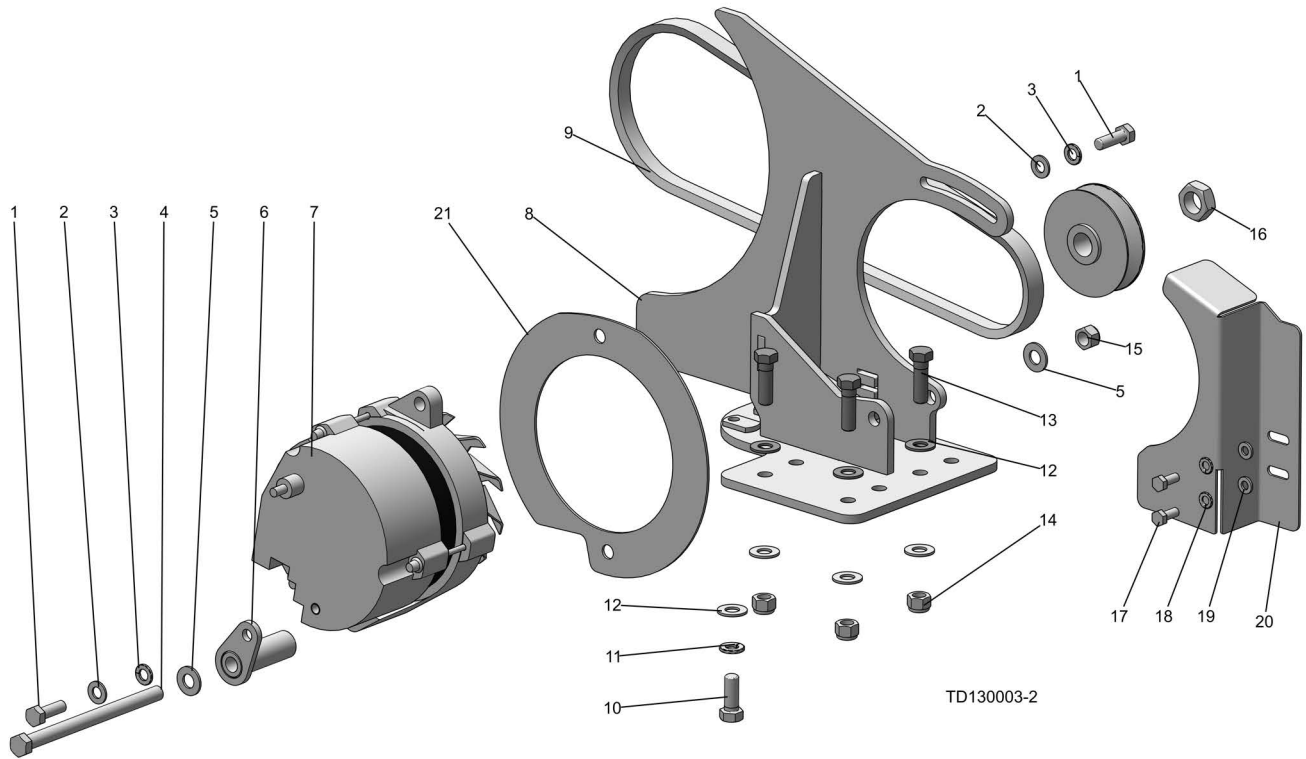
SECTION 4 REPLACEMENT PARTS

4.1 Motor Assembly



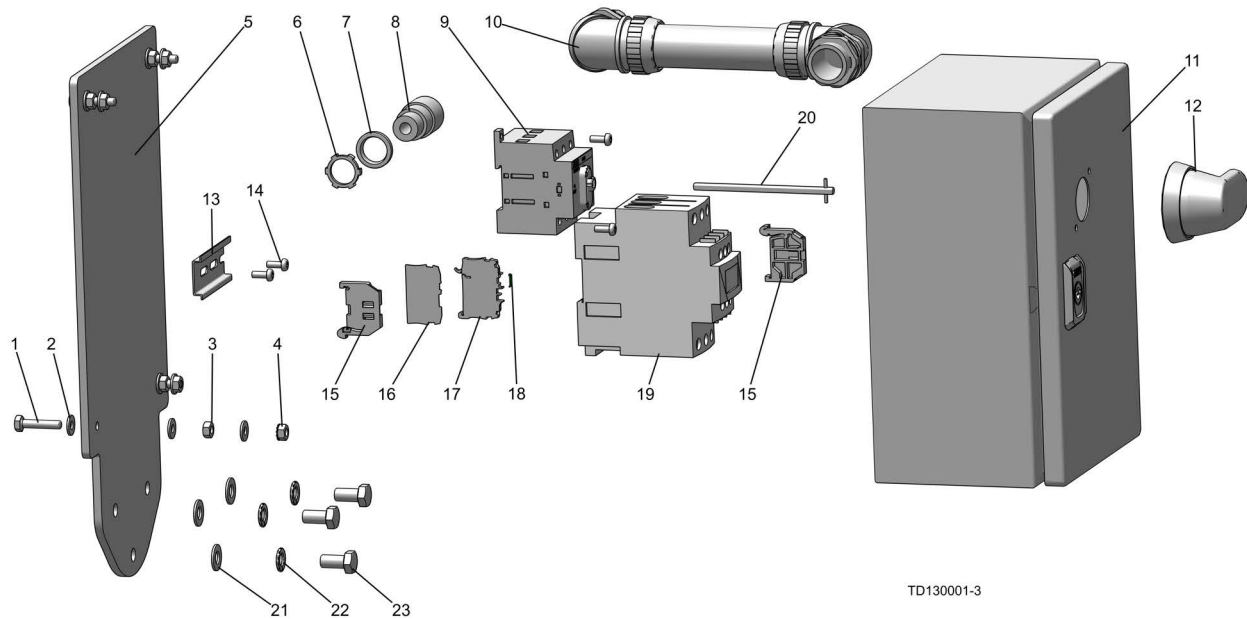
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	128399	Assembly, 15HP Marathon Electric Motor		1
1	P21001	Bushing, SH 1 3/8 Bore		2
2	047742	Sheave, 3V5.6x2-SH		1
3	047751	Belt, 2/3VFL900 Drive		1
4	062551	Sheave, Alternator		1
5	F05008-50	Bolt, 1/2-13x1 HH Gr2		2
6	F05011-9	Washer, 1/2 Split Lock		2
7	F05011-2	Washer, 1/2 SAE Flat		1
8	130003	Weldment, E15 Rear Motor Guard		1
9	F05010-200	Nut, M6-1.0 Nylon Lock		1
10	F05026-1	Washer, M6 Flat Class 4		3
11	F05020-6	Bolt, M6-1x20 HH Class 8		1
12	F05022-18	Bolt, M10-1.50 x 35MM HH Gr 8.8		2
13	F05011-88	Washer, 10MM Split Lock		1
14	F05011-134	Washer, M10 Flat		1
15	117085	Block, E15 Riser		1
16	130007	Assy, LX250G38 Top Belt Cover	130007 replaced 130006 after 5/2/2022 per ECN 38517.	
	13006	Assembly, LX250E15 Top Belt Cover		1
17	F05004-219	Screw, M6x1.0x16mm 8.8 HH		1
18	F05026-2	Washer, M6 Split Lock		1
19	011447	Weldment, Belt Enhance Brkt		1
20	130000	Motor, 15HP 3530RPM Marathon Premium Eff		1

4.2 Alternator



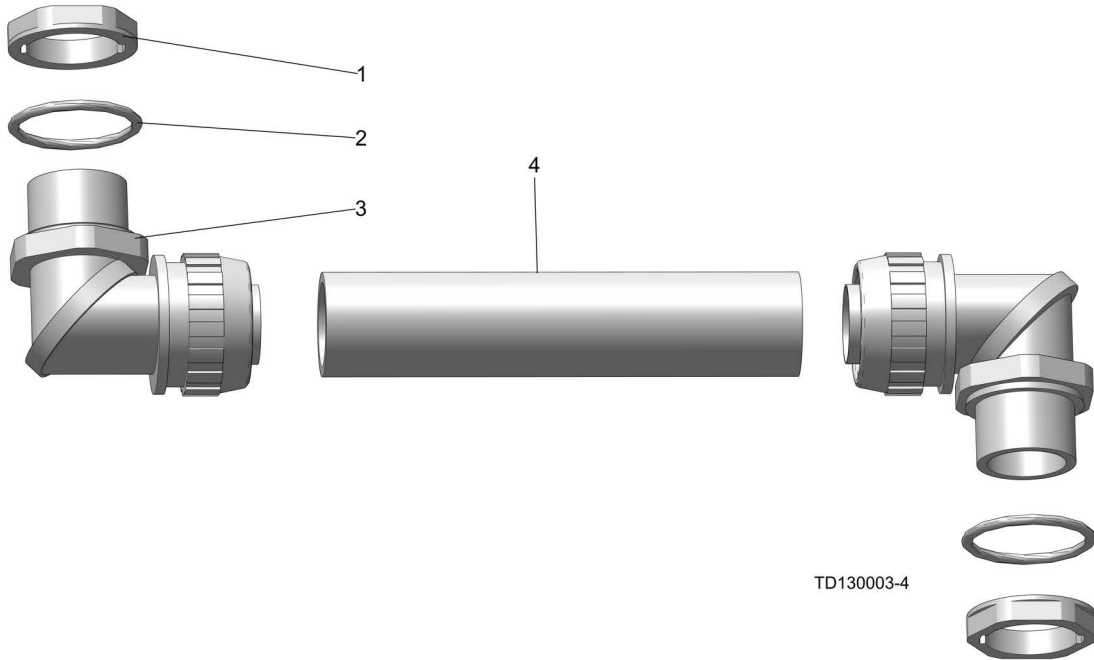
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	130004	Assembly, LX250E15 Alternator		1
1	F05004-40	Bolt, M8x1.25x25 HH FT		2
2	F05026-4	Washer, M8 Flat		2
3	F05011-130	Washer, M8 Spring Lock Zinc		2
4	F05022-21	BOLT, M10-1.5x140 HHBFT		1
5	F05011-134	Washer, M10 Flat		2
6	W12761	Brace Weldment, Alternator		1
7	050287-1	Alternator, 105A 12V CS130		1
8	128394	Weldment, LX250 E15 Alt Mount		1
9	P12740	Belt, 25 Hp Kohler Alternator		1
10	F05007-87	Bolt, 3/8-16x1 Gr5 HH		1
11	F05011-4	Washer, 3/8 Split Lock		1
12	F05011-3	Washer, 3/8 Flat SAE		4
13	F05007-123	Bolt, 3/8-16x 1 1/4 HH Gr5		1
14	F05010-10	Nut, 3/8-16 Hex Nyl Lock		1
15	F05004-270	Nut, M10-1.50 Hex Nyl Lock		1
16	P03804_NUT	Nut, 5/8-11 Zinc Jam Nylon Lock		1
17	F05004-219	Screw, M6x1.0x16mm 8.8 HH		1
18	128147	Plate, E15 Alt Cover		1
19	F05026-1	Washer, M6 Flat Class 4		1
20	128147	Plate, E15 Alt Cover		1
21	133127	Plate, Alternator Ring	133127 added after 5/2/2022 per ECN 38517.	1

4.3 Control Assembly



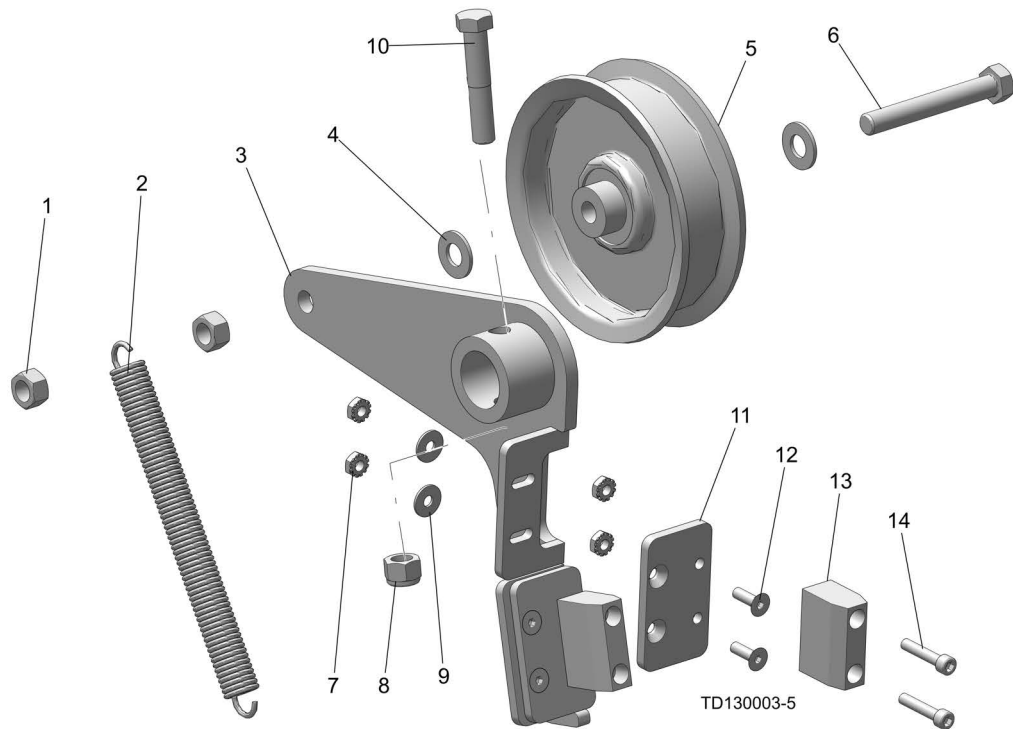
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	078929	CONTROL ASSEMBLY, LX250E		
1	F05005-116	Bolt, 1/4-20x1 1/4 HH Gr5		4
2	F05011-11	Washer, 1/4 SAE Flat		12
3	F05010-63	Nut, 1/4-20 Free Zinc		4
4	F05010-9	Nut, 1/4-20 Keps->		4
5	078930	Plate, LX250E Control Mount		1
6	E20461	Nut, 1/2 npt Connector Lock		1
7	E20460	Ring, 1/2 Sealing		1
8	E23492	Connector, 1/2 .125-.375 Portable Cord		1
9	050881-1	Disconnect, 63A 600V 3P 6mm Shaft		1
10	078931	Harness Assembly, LX250E Blade Motor (See Section 4.4)		1
11	117100	Enclosure, LX250 Motor Control		1
12	050907-1	Handle, Disconnect RED/TEL Pistol-6mm		1
13	024474	Din Rail, 35mmx7.5mmx1m Steel Sym		1
14	F05015-17	Bolt, #10-24x1/2 Ph Pan Hd, Type 23		4
15	051986	Din Clamp, Screwless		2
16	068102	Terminal Block, 2Pos 2.5mm End Plate		1
17	068130	Terminal Block, Numbers 1-10 1.5mm		1
18	068100	Terminal Block, 2Pos 1.5mm Clamp		1
19	069521	Contactor, 65A 3P 24VDC D-A Series		1
20	050908-1	Shaft, 290mm Pistol Grip Disconnect		1
21	F05011-134	Washer, M10 Flat		3
22	F05011-88	Washer, 10MM Split Lock		3
23	F05022-12	Bolt, M10-1.5 x 25 SHC		3

4.4 Blade Motor Harness



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	078931	HARNESS ASSEMBLY, LX250E BLADE MOTOR		
1	053735	Nut, 1" NPT Connector Lock Sealing		1
2	053734	Ring, 1" Sealing		1
3	024695	Connector, 1" Swivel Liquidtite		2
4	R01627	Conduit, 1" Diameter Maxiflex Black		24 in

4.5 Brake Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	065874	ASSEMBLY, BRAKE/CLUTCH		
1	F05010-25	Nut, 3/8-16 Swaged Lock		2
2	034810	Spring, Idler Arm LT15/D/E/G		1
3	065873	Weldment, Clutch/Brake Arm		1
4	034602	Idler, 4" O.D.x 3/8 Bore		1
5	F05011-3	Washer, 3/8 Flat SAE		2
6	F05007-230	Bolt, 3/8-16x2 3/4 FT Gr5		1
7	F05010-14	Nut, #10-24 Keps->		8
8	F05010-10	Nut, 3/8-16 Hex Nyloc		1
9	F05011-18	Washer, #10 SAE Flat		4
10	F05007-124	Bolt, 3/8-16X2 HH GR5		1
11	065872	Plate, Brake Adjustment		2
12	F05004-282	Screw, 10-24x5/8 FSHC BO		4
13	016488	Block, LT15 Brake		2
14	F05004-2	Bolt, 10-24x1 BO SHC		4