# **D19 Engine**

Safety, Operation, Maintenance & Parts Manual

038570 Engine, LT15 19HP Dieselrev.C Used with LT15D19 obsolete as of rev. E6.07

Safety is our #1 concern!

Form #1355



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: <u>woodmizer.com/patents</u>

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## **SECTION 1 ABOUT THIS MANUAL**

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

This manual provides information specific to the use of this equipment on the Wood-Mizer® sawmill. Refer to the sawmill 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.

### **SECTION 2 OPERATION**

## 2.1 Starting the Engine



**DANGER!** Ensure the blade is disengaged and all persons are out of the path of the blade before starting. Failure to do so will result in death or serious injury.



**DANGER!** Operate your engine only in well ventilated areas. The exhaust gases of your engine can cause nausea, delirium, and potentially death unless adequate ventilation is present.



**DANGER!** Never operate an engine with a fuel or oil leak. This is a fire hazard, which may cause serious injury or death.



**WARNING!** Do not operate engine without proper and operational spark arrester/muffler. Sparks emitted from the engine exhaust could ignite surrounding materials, causing serious injury or death.

See the engine manufacturer's manual for lubricating oil recommendations.

Use #2 or better quality diesel fuel for above freezing starting. Use a #1 quality diesel fuelfor below freezing starting.

Turn the key switch to the on (#1) position.

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

#### 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 dusty conditions.

**NOTICE** This manual only provides information about additional procedures or procedures to be performed at different time intervals than found in the manufacturer's manuals. Refer to the manufacturer's manual for complete maintenance instructions.



**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 Safety

Use caution when performing maintenance or service to the engine.



**DANGER!** Take proper protective measures against rotating shafts, pulleys, fans, etc.

Ensure loose clothing or long hair does not engage rotating members.

**DANGER!** Do not touch or perform service functions on a hot engine. Allow the engine to cool sufficiently before beginning any service function. Hot engine components will cause serious burns.



**WARNING!** Remove the blade before performing any engine service.

**WARNING!** Wear eye, hand, and foot protection equipment when performing service functions.

## 3.2 Cooling System

Wash the engine or brush off sawdust and debris every 50 hours of operation.

Remove any dust, dirt, or oil.

See engine manual for further instructions.

### 3.3 Air Filter & Pre-Cleaner



**WARNING!** Always wear proper and necessary safety equipment when performing service functions. Proper safety equipment includes eye protection, breathing protection, hand protection and foot protection.

Service the pre-cleaner every four hours of operation by gently shaking excess sawdust and debris from the foam piece.

Clean the air filter (air cleaner element) and pre-cleaner (element wrapper) every eight hours of operation.

Replace the air filter (cleaner) every 200 hours of operation.

Replace the pre-cleaner (element wrapper) every 2000 hours of operation.

See the engine manual for further instructions.

### 3.4 Fuel Filter

Replace the fuel filter every 100 hours of operation or as required for engine performance.

## 3.5 RPM Adjustments



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

Check the RPM with a tachometer every 200 hours of operation.

Engine	High End RPM	Low End RPM
D19	3600	1500

Before checking the RPM, ensure belt and brake strap tensions are correct (See Sawmill Maintenance).

Check oil, fuel, and coolant levels.

Ensure the throttle cable does not affect the engine RPM when the clutch handle is disengaged.

Ensure the cable is not bent or kinked.

### 3.6 Miscellaneous Maintenance



**CAUTION!** Do not remove the plug wire to check for electrical spark. Damage to the ignition circuit may result.

Inspect the spark plugs every 100 hours of operation. Remove any deposits and adjust gap if necessary. See engine manual for further information.

Clean and inspect the spark arresters every 50 hours of operation. Replace if damaged.

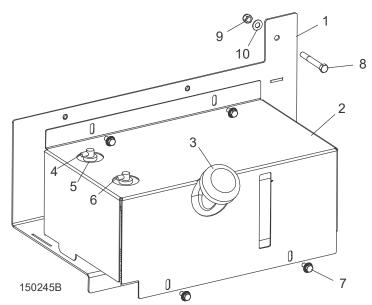
Review the manufacturer's manual for maintenance intervals.

# **SECTION 4 REPLACEMENT PARTS**

# 4.1 Fuel Tank

LT15 Rev. E8.08+

LT15W Rev. A1.08+

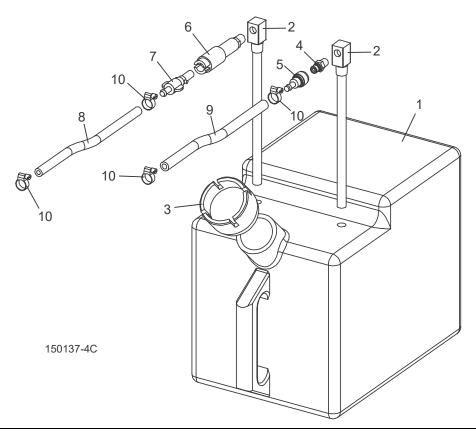


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074828	TANK ASSEMBLY, 5 GALLON DIESEL		1
1	103802	Weldment, Fuel Tank Tray		1
2	103867	Cover, Fuel Tank		1
	103928	Tank, 5 Gallon Low Pro Diesel		1
3	061257	Cap, Fuel Tank Diesel 080185BE		1
4	061255	Fitting, Pick-Up/Tube Diesel 468871A		1
5	061250	Grommet, Shut Off 046881		2
6	061256	Fitting, Return/tube Diesel 468489		1
7	F05006-101	Bolt, 5/16-18 x 3/4" Hex Head w/Flat&Lock Washer		4
8	F05007-73	Bolt, 3/8-16 x 3" Hex Head Grade 5		2
9	F05010-10	Nut, 3/8-16 Hex Nyloc		2
10	F05011-3	Washer, 3/8" Flat SAE		2
	R02423-3	Hose, Fuel 5/16" EPA 15G CARB		8 Ft.
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		8 Ft.
	103802	Weldment, Fuel Tank Tray		1
	P649	Clamp, 7/32in-5/8in Hose		2
	P07584	Clamp, 1/2EMT Coated		1

# 4.2 Fuel Tank

LT15 Rev. E6.05 - E8.07

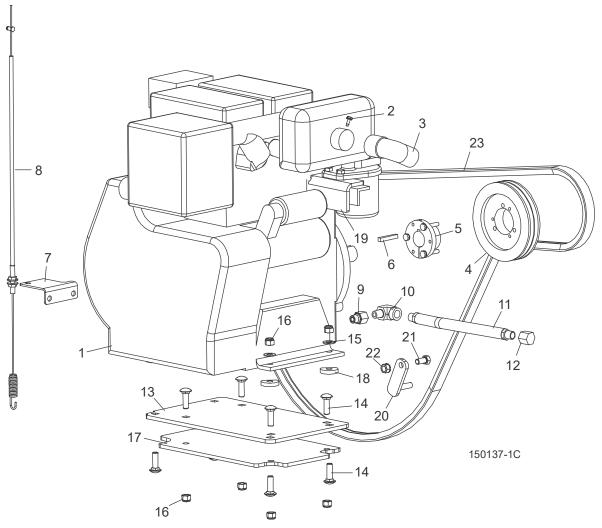
LT15W Rev. A1.00 -A1.07



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A12132	TANK ASSEMBLY, 5 GALLON DIESEL		1
1	P12166	Tank, 5 Gallon Fuel	Available in assemblies only.	1
2	P12172	Pickup, 9" Fuel		2
3	061257	Cap, Fuel Tank Diesel 080298AE		1
4	015583	Fitting, 1/4" NPT Male Quick Disconnect		1
5	015582	Fitting, Female Quick Disconnect Barb		1
6	P12175	Fitting, 1/4" NPT Plastic Female Disconnect		1
7	P12176	Fitting, 1/4" Barb Plastic Male Disconnect		1
8	P649	CLAMP, 7/32"-1/2" HOSE		4
9	016338	HOSE, 5/16" FUEL LINE		7 Ft
10	P642	HOSE, 1/4" ID FUEL		9.3 Ft

# 4.3 Engine Assembly

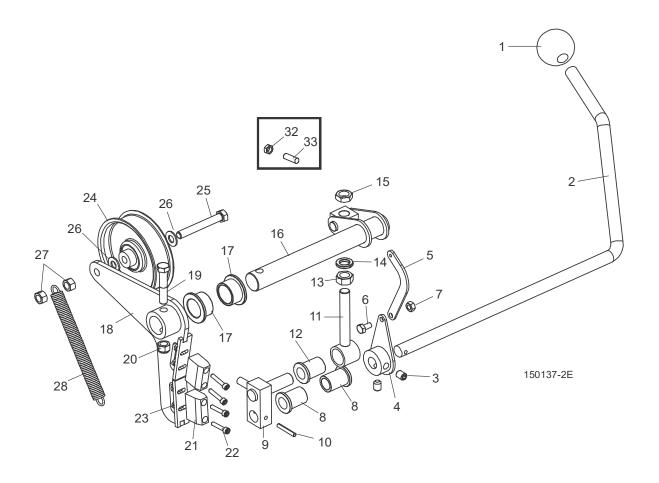
## LT15 Rev. E1.00+



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	038570	Engine Assembly, LT15 19HP Diesel		1
1	049387	Engine, 19HP Deutz Diesel	Available in assemblies only.	1
	054911	Filter, Air #7700 175 180480		1
	054912	Pump, Fuel #7700 6521 180420		1
	054913	Filter, Oil #7700 217 52020		1
	054914	Starter, Engine #7700 563 180540		1
	054915	Shutdown, Engine #7700 674 180470		1
	014209	Filter, Fuel		1
2	F05015-7	Screw, #10-24 x 1/2" Self-Tapping	Screw used instead of P09900 clamp.	1
3	038590	Deflector, 1 1/4" ID Exhaust D19		1
4	047742	Sheave, 3V5.6 x 2-SH		1
5	038432	Bushing, SH x 1 1/8"		1
6	S04124	Key, 1/4" x 1 11/16"		1
7	049399	Plate, Throttle D19		1
8	049406	Cable, LT15/LT28 D19		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
9	038584	Fitting, M14x1.5 Male-1/4 NPT Female		1
10	038571	Fitting, 1/4" NPT Male 90 Deg 3/8" NPT Fem		1
11	P10082	Hose, 3/8" NPT x 9 5/8" Rubber		1
12	P04332	Cap, 3/8 Pipe Galvanize		1
13	049389	Plate, Engine Mount D19	Mount Plate 049389 modified 6/06 to provide clearance for throttle spring. Four Flat Washers F05011-3 removed to provide proper engagement of lock nut on bolt.	1
14	F05007-127	Bolt, 3/8-16 x 1 1/4" Carriage Gr5		8
15	F05011-3	Washer, 3/8" Flat SAE	Mount Plate 049389 modified 6/06 to provide clearance for throttle spring. Four Flat Washers F05011-3 removed to provide proper engagement of lock nut on bolt.	4
16	F05010-10	Nut, 3/8-16 Hex Nylon Lock		8
17	038572	Plate, 1/4" Spacer D19		1
18	038573	Spacer, 13/32" ID x 1 1/4" OD x 1/4"		4
19	038574	Bracket, LT15 D19 Filter Mount		1
20	048237	Support Weldment, Drive Belt		1
21	F05007-118	Bolt, 3/8-16 x 3/4" Hex Head Grade 5		1
22	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
23	047751	Belt, 2/3VFL900 Drive		1

# 4.4 Throttle/Clutch Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	P04211	KNOB, 5/8-11 BALL		1
2	016487	HANDLE, LT15 CLUTCH	Clutch Handle 016487 modified Rev. E6.01 to eliminate possible pinch point with feed rope pulley with saw head at certain heights.	1
3	062313	HANDLE, LT15 CLUTCH		1
4	F05007-68	SCREW, 3/8-16 X 3/8" SOCKET HEAD CUP PT SET		2
5	034815	ACTUATOR WELDMENT, THROTTLE LT15D&G		1
6	034818	LINKAGE, THROTTLE LT15D&G		1
7	F05005-15	BOLT, 1/4-20 X 1/2" HEX HEAD		1
8	F05010-21	NUT, 1/4-20 SWAGED		1
9	016486	BUSHING, 5/8" ID X 7/8" OD X 1 1/8" LONG FL BRONZE		2
10	034612	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE		1
11	065572	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE		1
12	F05012-16	PIN, 3/16" X 1 1/4" ROLL		1
	034605	LINKAGE ASSEMBLY, W/BEARING		1
13	034604	Link Weldment, Clutch/Brake	Available in assemblies only.	1
14	016486	Bushing, 5/8" ID x 7/8" OD x 1 1/8" Long FI Bronze		1
15	F05010-35	NUT, 1/2-13 FREE HEX, ZINC		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
16	F05011-9	WASHER, 1/2" SPLIT LOCK		1
17	F05010-31	NUT, 1/2-13 JAM		1
18	034608	PIVOT WELDMENT, CLUTCH/BRAKE		1
19	P737	BUSHING, 1" X 1 1/4" X 3/4" FLG BRONZE		2
	065874	BRAKE/CLUTCH ASSEMBLY, LT15	Replaces Brake/Clutch Assembly 034603 to improve durability (Rev. E7.01). Brake/Clutch Assembly 034603 (including Clutch/Brake Arm Weldment 034613) modified 9/10. Spring mount hardware changed to provide more freedom of movement and prevent binding point in spring.	1
20	065873	Arm Weldment, Clutch/Brake LT15		1
21	F05007-124	Bolt, 3/8-16 x 2" Hex Head Gr5		1
22	F05010-10	Nut, 3/8-16 Hex Nylon Lock		1
23	016488	Block, LT15 Brake		2
24	F05004-2	Screw, 10-24 x 1" Socket Head		4
25	F05010-14	Nut, #10-24 Keps		8
26	034602	Idler, 4" O.D. x 3/8" Bore		1
27	F05007-230	Bolt, 3/8-16 x 2-3/4" Hex Head Gr5 Full Thread	Replaces Brake/Clutch Assembly 034603 to improve durability (Rev. E7.01). Brake/Clutch Assembly 034603 (including Clutch/Brake Arm Weldment 034613) modified 9/10. Spring mount hardware changed to provide more freedom of movement and prevent binding point in spring.	1
28	F05011-3	Washer, 3/8 Flat		2
29	F05010-25	Nut, 3/8-16 Swaged Lock		2
30	034810	Spring, Idler Arm LT15D/E/G		1
31	F05004-282	Screw, 10-24 x 5/8" FSHC		4
32	065872	Plate, Brake Adjustment		2
33	F05011-18	Washer, #10 SAE Flat		4