# G18/G19 Engine

Safety, Operation, Maintenance & Parts Manual

065192 Engine Module, LT15G19

rev. G

# Safety is our #1 concern!

March 2011

Form #1744

Used with LT15s rev. E6.09- E8.14 rev. A1.00- A2.00

G18 engines were re-designated G19 on 1/30/2015 per ECN 20372 to match the actual rating of the engine.



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: <a href="https://www.woodmizer.com/patents">woodmizer.com/patents</a>

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#### SECTION 1 SAFETY

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.

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.



## 1.1 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.

#### **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.



**CAUTION!** EPA Compliant Gas Tanks Only: Always relieve all fuel pressure inside the tank prior to filling or connecting fuel fittings. Failure to do so may result in fuel spillage.

**CAUTION!** EPA Compliant Gas Tanks Only: Disconnect the fuel tank when not in use, or engine flooding or fuel spillage may result.

- 1. Close the engine choke by pulling the choke cable knob out.
- Turn the key switch to the START position and release. Release the key switch to the RUN position after the engine starts.
- 3. When the engine starts, slowly push the choke cable knob in.

#### **ENGINE SHUTOFF**

- 1. Disengage the clutch handle to stop the blade if necessary.
- 2. Let the engine run for 15 seconds with no load, then turn the key switch to the OFF 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.

Clean the grass screen, cooling fins, and external surfaces.

Remove any dust, dirt, or oil.

See engine manual for further instructions.

#### 3.3 Air Filter & Pre-Cleaner



**WARNING!** Always wear proper safety equipment when performing service functions, including 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 Battery

Check the battery electrolyte level every 50 hours of operation. See manufacturer's manual for instructions.



**DANGER!** Batteries expel explosive gases.

Keep sparks, flames, burning cigarettes, or other ignition sources away at all times.

Wear a face shield when working on batteries.



**WARNING!** Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

#### 3.6 Miscellaneous Maintenance

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

Review the manufacturer's engine manual for maintenance intervals.

### 3.7 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
G19	3750	1800

TABLE 3-1

Before checking the RPM, make sure belt and brake strap tensions are correct (See Sawmill Maintenance). Also check oil, fuel, and coolant levels.

Check that the cable spring, cable guide, cable, and throttle brackets are aligned.

**NOTE:** It is important that the above components are aligned. Proper alignment allows any slack in the cable (when engine is idling) to slide down into the cable spring. This maintains free operation of the cable and prevents the cable from kinking. Make sure the shoulder bolt does not rub against the crankcase vent tube.

- 1. Start the engine to measure the low-end RPM.
- 2. Refer to the engine manual to adjust the low-end RPM.
- 3. Engage the clutch handle to throttle the engine and measure the high-end RPM. The high-end RPM is factory-set at 3750. Readjust the throttle cable if necessary to increase or reduce the high-end engine speed.

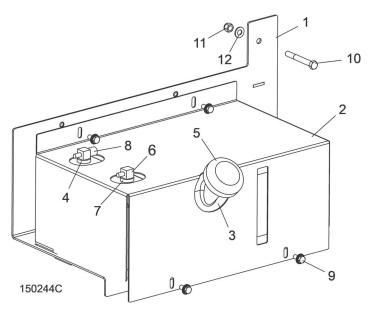
The throttle cable should be tensioned just enough so that the engine revs as soon as the clutch/brake handle is engaged.

**NOTE:** A properly adjusted throttle will extend the cable spring 1/4" to 3/8" (6.4 - 9.5 mm) when running and have a slight amount of slack in the cable when idling.

# **SECTION 4 REPLACEMENT PARTS**

# 4.1 Fuel Tank

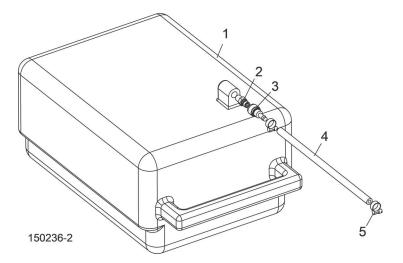
LT15 Rev. E8.07+



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	103815	TRAY ASSEMBLY, LT15 FUEL TANK		1
1	103802	Weldment, Fuel Tank Tray		1
2	103867	Cover, Fuel Tank		1
3	103878	Tank, 5 Gallon Low Pro EPA Fuel	Fuel shut-off valve added to fuel tank to prevent possibility of fuel feeding back into engine during travel (LT15W Rev. A1.09/LT15 Rev. E8.09). Created service part 074943 Fuel Pick-Up with Shut-Off Fitting.	1
4	061250	Grommet, Shut Off		1
5	061251	Gas Cap, LT15		1
6	061252	Valve, Slosh		1
7	061253	Grommet, Slosh Valve		1
8	074943	Fitting, Fuel Pick-Up With Shut-Off		1
9	F05006-101	Bolt, 5/16-18 x 3/4" Hex Head w/Flat&Lock Washer		4
10	F05007-73	Bolt, 3/8-16 x 3" Hex Head Grade 5		2
11	F05010-10	Nut, 3/8-16 Hex Nyloc		2
12	F05011-3	Washer, 3/8" Flat SAE		2
	R02423-1	Hose, Fuel 3/16" EPA 15G CARB		8 Ft.
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		8 Ft.

# 4.2 Fuel Tank

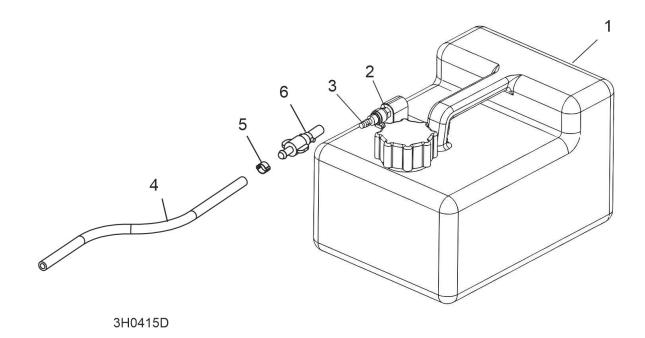
## LT15 Rev. E8.04 - E8.06



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074643	TANK ASSEMBLY, 6 GALLON GAS SERVICE		1
1	076478	Tank, Gas	Available in assemblies only.	1
2	015583	Fitting, 1/4" NPT Male Quick Disconnect		1
3	015582	FITTING, FEMALE QUICK DISCONNECT BARB		1
4	P642	HOSE, 1/4" ID FUEL		9.3 Ft
5	P649	CLAMP, 7/32" - 1/2" HOSE		2

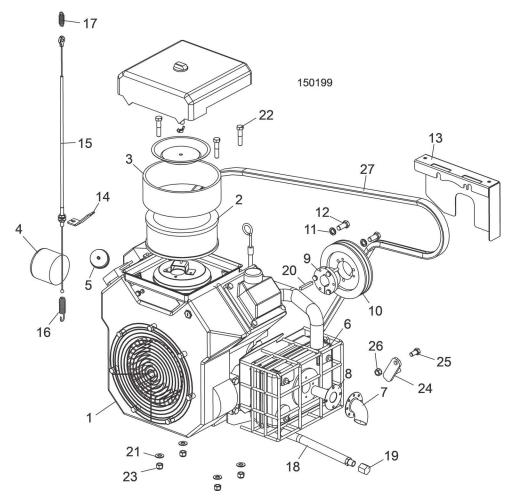
# 4.3 Fuel Tank

## LT15 Rev. E4.03 - E8.03



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074664	Assy, 3 Gallon Gas Tank, Single Line		1
1	X200-1144	Can, 3 Gallon Gas		1
2	015583	Fitting, 1/4 NPT Male Quick Disconnect		1
3	015582	Fitting, Female Quick Disconnect Barb		1
4	P642	HOSE, 1/4" ID FUEL		9.3 Ft
5	P649	CLAMP, 7/32 - 1/2 HOSE		2
6	P12176	FITTING, 1/4" NPT PLASTIC MALE DISCONNECT	Replacement requires qty. 1 hose clamp (P649).	1

# 4.4 Engine Assembly

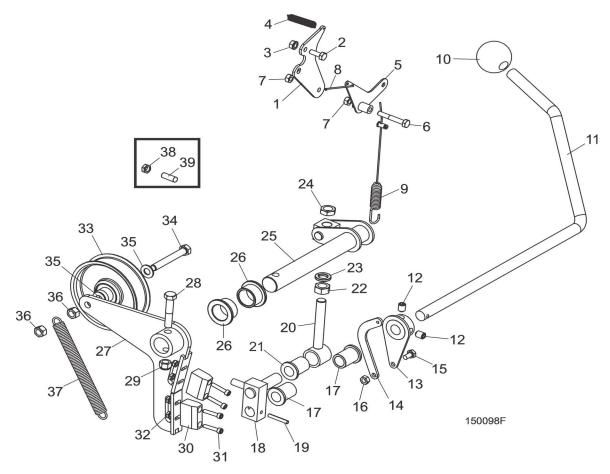


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	065191	Engine Assembly, LT15 G19		1
1	016899	Engine, 19HP Kohler CH620-3088		1
2	141022	Filter, 19hp Kohler Air&PreClnr Kit		1
	006907	Filter, Kohler Air	006907 and 006931 combined to make kit 141022 on 08/2024	1
	006931	Pre Cleaner, Kohler	006907 and 006931 combined to make kit141022 on 08/2024	1
	061371	Starter, Kohler Engine KH# 25 098 21S		1
	061417	Plug Spark, Kohler RFI #25 132 14-S		2
	P12757	Plug, RC12YC Kohler Spark #12-132-02		2
	061370	Module Kit, Kohler Ignition #KH24 584 45S (Qty. 2)		1
	048391	Pump, Kohler Fuel #24-393-16S		1
	061150	Switch, Kohler Ignition #25-099-37S		1
3	065264	Filter, Kohler Oil #12 050 01S		1
4	P12758	Filter, Kohler Fuel #24-050-13		1
5	065193	Muffler Assembly, Kohler		1
6	016496	Deflector, Kohler Muffler #12-755-28		1
7	016495	Arrestor, Kohler Spark #12-189-02		1
8	038432	Bushing, 1 1/8" SH		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
9	047742	Pulley, 3V5.6 x 2" SH		1
10	F05011-48	Washer, 7/16" Split Lock		2
11	F05007-145	Bolt, 7/16-14 x 1" Hex Head Grade 5		2
12	016493	Plate, Engine Guard		1
13	047750	Plate, Throttle Cable Mount		1
14	047749	Cable, LT15 G25 Throttle		1
15	016033	Spring, Throttle		1
16	015952	Spring, Throttle Extension		1
17	P10082	Hose, 3/8" NPT Oil Drain		1
18	P04332	Cap, Oil Drain Hose		1
19	S04124	Key, 1/4" x 1 11/16"		1
	024718	Harness, Battery To Engine (not shown)		1
20	F05011-3	WASHER, 3/8" SAE FLAT		4
21	F05007-119	Bolt, 3/8-16 x 1 3/4" Hex Head Grade 5		4
22	F05010-10	Nut, 3/8-16 Hex Nylon Lock		4
23	048237	Support Weldment, Drive Belt		1
24	F05007-118	Bolt, 3/8-16 x 3/4" Hex Head Grade 5		1
25	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
26	047751	Belt, 2/3VFL900 Drive		1
	065379	CONVERSION KIT, LT15G15 TO G18 (REQ'D TO CONVERT FROM G15 TO G18)		1
	036657	Wheel Assembly, LT15 3V Drive		1
	065191	Engine Assembly, LT15 Gas 18hp		1
	047744	Tray Assembly, LT15 Water Bottle		1
	047751	Belt, 2/3VFL900 Drive		1
	048237	Support Weldment, LT15G25 Belt		1
	F05007-118	Bolt, 3/8-16 x 3/4" Hex Head Grade 5		1
	F05010-19	Nut, 3/8-16 Keps		1
	F05015-1	Bolt, 1/4-20 x 1/2" Self Tap Hex Head		2
	P07584	Clamp, 1/2" EMT Coated		2
	F05010-10	Nut, 3/8-16 Hex Nyloc		4
	038871	Reduction Kit, LT15 Up/Dn		1
	061325	CARB KIT, G25 DE-ICING 24 755 68S		1

# 4.5 Throttle Assembly

#### LT15G18 Rev. E6.09 - E7.00

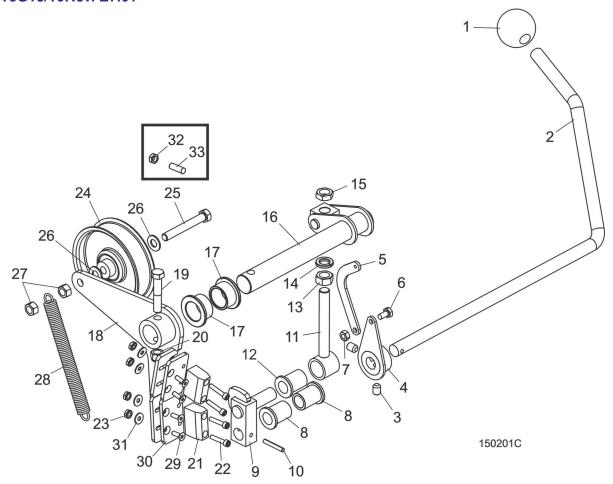


REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	034616	PLATE, THROTTLE CABLE BRACKET LT15G		1
2	F05005-1	SCREW, 1/4-20 X 3/4 FT HEX HEAD		1
3	F05010-69	NUT, 1/4-20 NYLON LOCK		1
4	014818	SPRING, EXTENSION 3/8 X 3		1
5	034805	PIVOT WELDMENT, THROTTLE LT15G		1
6	F05005-125	BOLT, 1/4-20 X 2 HEX HEAD GR5		1
7	F05010-21	NUT, 1/4-20 SWAGED		2
8	015446	LINK, THROTTLE 2 13/16		1
9	034838	CABLE ASSEMBLY, LT15G15 THROTTLE		1
10	P04211	KNOB, 5/8-11 BALL		1
11	016487	HANDLE, LT15 CLUTCH		1
12	F05007-12	SCREW, 3/8-16 X 1/2 SOCKET HEAD CUP PT SET		2
13	034815	ACTUATOR WELDMENT, THROTTLE LT15D&G		1
14	034818	LINKAGE, THROTTLE LT15D&G		1
15	F05005-15	BOLT, 1/4-20 X 1/2" HEX HEAD		1
16	F05010-21	NUT, 1/4-20 SWAGED		1
17	016486	BUSHING, 5/8" ID X 7/8" OD X 1 1/8" LONG FLANGED BRONZE		2

5==	DADT #	PERCENTION	COMMENTO	OT\/
REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	034612	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE		1
19	F05012-16	PIN, 3/16 X 1 1/4 ROLL		1
20	034605	LINKAGE ASSEMBLY, W/BEARING		1
21	016486	Bushing, 5/8" ID x 7/8" OD x 1 1/8" Long Flanged Bronze		1
22	F05010-35	NUT, 1/2-13 FREE HEX, ZINC		1
23	F05011-9	WASHER, 1/2 SPLIT LOCK		1
24	F05010-31	NUT, 1/2-13 JAM		1
25	034608	PIVOT WELDMENT, CLUTCH/BRAKE		1
26	P737	BUSHING, 1 X 1 1/4 X 3/4 FLG BRONZE		2
	034603	BRAKE/CLUTCH ASSEMBLY, LT15		1
27	034613	Arm Weldment, Clutch/Brake LT15		1
28	F05007-124	Bolt, 3/8-16 x 2 Hex Head Gr5		1
29	F05010-10	Nut, 3/8-16 Hex Nylon Lock		1
30	016488	Block, LT15 Brake		2
31	F05004-2	Screw, 10-24 x 1" Socket Head		4
32	F05010-14	Nut, #10-24 Keps		4
33	034602	Idler, 4" O.D. x 3/8 Bore		1
34	F05007-230	Bolt, 3/8-16 x 2-3/4" Hex Head Gr5 Full Thread		1
35	F05011-3	Washer, 3/8 Flat		2
36	F05010-25	Nut, 3/8-16 Swaged Lock		2
37	034810	Spring, Idler Arm LT15/D/E/G		1

# 4.6 Throttle Assembly

LT15G18/19Rev. E7.01+



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	P04211	KNOB, 5/8-11 BALL		1
2	016487	HANDLE, LT15 CLUTCH		1
3	F05007-68	SCREW, 3/8-16 X 3/8 SOCKET HEAD CUP PT SET		2
4	034815	ACTUATOR WELDMENT, THROTTLE LT15D&G		1
5	034818	LINKAGE, THROTTLE LT15D&G		1
6	F05005-15	BOLT, 1/4-20 X 1/2" HEX HEAD		1
7	F05010-21	NUT, 1/4-20 SWAGED		1
8	016486	BUSHING, 5/8" ID X 7/8" OD X 1 1/8" LONG FLANGED BRONZE		2
9	065572	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE		1
10	F05012-16	PIN, 3/16 X 1 1/4 ROLL		1
11	034605	LINKAGE ASSEMBLY, W/BEARING		1
12	016486	Bushing, 5/8" ID x 7/8" OD x 1 1/8" Long Flanged Bronze		1
13	F05010-35	NUT, 1/2-13 FREE HEX, ZINC		1
14	F05011-9	WASHER, 1/2 SPLIT LOCK		1
15	F05010-31	NUT, 1/2-13 JAM		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
16	034608	PIVOT WELDMENT, CLUTCH/BRAKE		1
17	P737	BUSHING, 1 X 1 1/4 X 3/4 FLG BRONZE		2
	065874	BRAKE/CLUTCH ASSEMBLY, LT15		1
18	065873	Arm Weldment, Clutch/Brake LT15		1
19	F05007-124	Bolt, 3/8-16 x 2 Hex Head Gr5		1
20	F05010-10	Nut, 3/8-16 Hex Nylon Lock		1
21	016488	Block, LT15 Brake		2
22	F05004-2	Screw, 10-24 x 1" Socket Head		4
23	F05010-14	Nut, #10-24 Keps		8
24	034602	Idler, 4" O.D. x 3/8 Bore		1
25	F05007-230	Bolt, 3/8-16 x 2-3/4" Hex Head Gr5 Full Thread		1
26	F05011-3	Washer, 3/8 Flat		2
27	F05010-25	Nut, 3/8-16 Swaged Lock		2
28	034810	Spring, Idler Arm LT15/D/E/G		1
29	F05004-282	Screw, 10-24 x 5/8" FSHC		4
30	065872	Plate, Brake Adjustment		2
31	F05011-18	Washer, #10 SAE Flat		4
32	F05010-29	NUT, 3/8-16 JAM		2
33	F05007-18	SCREW, 3/8-16X1 1/4 SHOP SET		2