D10 Engine

Safety, Operation, Maintenance & Parts Manual

034630 Engine,10HP Yanmar

rev A-D



Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

April 2010

Form #

Used with LT15D10

rev.E1.00 - E8.14

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 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.

- **1.** See the engine manufacturer's manual for lubricating oil recommendations.
- 2. Use #2 or better quality diesel fuel for above freezing starting. Use a #1 quality diesel fuel for below freezing starting.
- **3.** Turn the key switch to the on (#1) position.
- 4. Push the black thumb knob down and hold.
- **5.** Turn the key switch to the start (#2) position and release.
- 6. Release the black thumb knob.

ENGINE SHUTOFF

Turn the key switch to the off (#0) position.

Push the black thumb knob up and hold until the engine is shut off.

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 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
D10	3600	1000

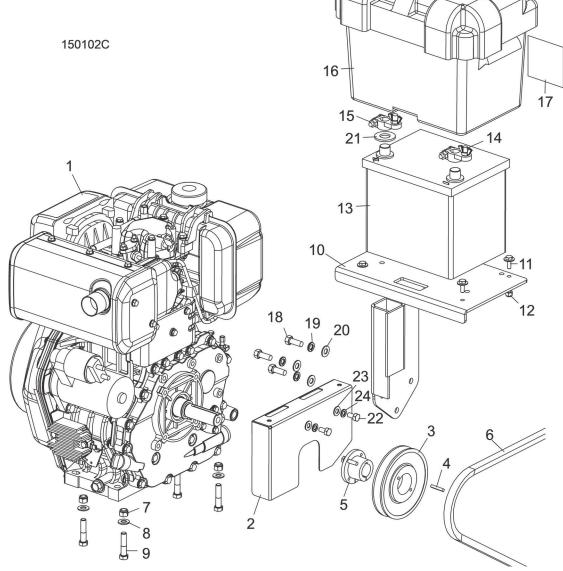
Before checking the RPM, make sure belt and brake strap tensions are correct (See Sawmill Maintenance).

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.

SECTION 3 REPLACEMENT PARTS

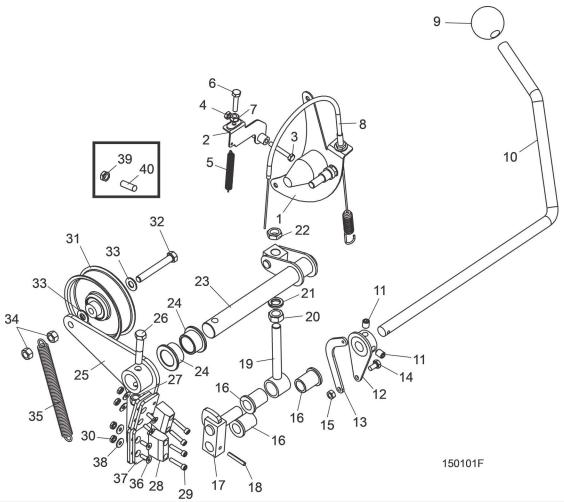
3.1 Engine Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	P12393	Cover, Engine		1
	034630	ENGINE ASSEMBLY, 10 HP YANMAR W/CLUTCH		1
1	034839	Engine, D10 Yanmar		1
	054916	Filter, D10 Yanmar Engine Air (Engine Type LR100B6 2005+)		1
	034028	Filter, D10 Yanmar Engine Air (Engine Type LE100EED15)		1
	034029	Filter, D10 Yanmar Engine Oil		1
	046962	Filter, D10 Yanmar Engine Fuel #114650-55120		1
	034030	Nozzle, D10 Yanmar Engine Injector		1
	034031	Injector, D10 Yanmar Engine		1
	034032	Starter, D10 Yanmar Engine		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
		Throttle and Clutch Parts (See Section 4.5)		
	P10082	Hose, Oil Drain		1
	P04332	Cap, Oil Drain Hose		1
2	016493	Plate, LT15 Engine Guard		1
3	016512	Sheave, BK55QT		1
4	S04124	Key, 1/4" X 1 11/16"	Replaces S21486 1/4" x 1" key (S04124 always used in production).	1
5	016513	Bushing, QT X 1		1
6	017943	BELT, BX87 DRIVE		1
7	F05010-10	NUT, 3/8-16 HEX NYLON LOCK		4
8	F05011-3	WASHER, 3/8" FLAT SAE		4
9	F05007-119	BOLT, 3/8-16 X 119 HEX HEAD		4
	024718	Harness Assembly, Battery To Engine		1
	034609	Battery Box module, LT15D/G		1
10	034899	Mount Weldment, Battery/Control Box		1
11	F05005-134	Bolt, 1/4-20 x 3/4 Hex Head w/Conical Washer		4
12	F05010-69	Nut, 1/4-20 Nylon Lock		4
13	028004	Battery, 12V 524/26A		1
14	033359	Clamp, Negative Battery		1
15	033358	Clamp, Positive Battery		1
16	016413	Box, Battery		1
17	P10364	Decal, 12V Warning		1
18	F05007-7	Bolt, 3/8-16 x 1 HHC		3
19	F05011-4	Washer, 3/8 Split Lock		3
20	F05011-3	Washer, 3/8 Flat SAE		3
21	P12161	Washer, Felt Battery Terminal		1
22	F05004-47	BOLT, M8 Z 125 X 16MM HEX HEAD		2
23	F05011-17	WASHER, 5/16 SAE FLAT		2
24	F05011-13	WASHER, 5/16" SPLIT LOCK		2

3.2 Throttle/Clutch Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	034813	PLATE, KEY SWITCH MOUNT		1
2	034808	SHUT-OFF WELDMENT, THROTTLE LT15D		1
3	F81001-5	BOLT, M6-1.0 X 40MM HEX HEAD		1
4	F81031-1	NUT, M6-1.0 FREE NUT		1
5	014818	SPRING, EXTENSION 3/8 X 3		1
6	F05005-101	BOLT, 1/4-20 X 1 HEX HEAD GR5		1
7	F05010-9	NUT, 1/4-20 KEPS		1
8	034809	CABLE ASSEMBLY, LT15D10 THROTTLE		1
9	P04211	KNOB, 5/8-11 BALL		1
10	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
11	F05007-68	SCREW, 3/8-16 X 3/8SOCKET HEAD CUP PT SET		2
12	034815	ACTUATOR WELDMENT, THROTTLE LT15D&G		1
13	034818	LINKAGE, THROTTLE LT15D&G		1
14	F05005-15	BOLT, 1/4-20 X 1/2 HEX HEAD		1
15	F05010-21	NUT, 1/4-20 SWAGED		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
16	016486	BUSHING, 5/8 ID X 7/8 OD X 1 1/8 LONG FL BRONZE		3
17	065572	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE	Replaces 034612 to make clutch pivot stop adjustable Rev. E6.10.	1
18	F05012-16	PIN, 3/16 X 1 1/4 ROLL		1
19	034605	LINKAGE ASSEMBLY, W/BEARING		1
20	F05010-35	NUT, 1/2-13 FREE HEX, ZINC		1
21	F05011-9	WASHER, 1/2 SPLIT LOCK		1
22	F05010-31	NUT, 1/2-13 JAM		1
23	034608	PIVOT WELDMENT, CLUTCH/BRAKE		1
24	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
25	065873	Arm Weldment, Clutch/Brake LT15		1
26	F05007-124	Bolt, 3/8-16 x 2 Hex Head Gr5		1
27	F05010-10	Nut, 3/8-16 Hex Nylon Lock		1
28	016488	Block, LT15 Brake		2
29	F05004-2	Screw, 10-24 x 1 Socket Head	Replaces F05004-50 originally supplied before 4/03 (duplicate part numbers).	4
30	F05010-14	Nut, #10-24 Keps		8
31	034602	Idler, 4" O.D. x 3/8 Bore		1
32	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
33	F05011-3	Washer, 3/8 Flat		2
34	F05010-25	Nut, 3/8-16 Swaged Lock		2
35	034810	Spring, Idler Arm LT15D/E/G		1
36	F05004-282	Screw, 10-24 x 5/8" FSHC		4
37	065872	Plate, Brake Adjustment		2
38	F05011-18	Washer, #10 SAE Flat		4