

LT28 G25 Engine

Safety, Operation, Maintenance & Parts Manual

003295 Engine, LT28 Gas 25hp **rev. D**

Safety is our #1 concern!

Form #1352

***Used with the
LT28G25***

rev. A6.11- A6.18



**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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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.



IMPORTANT! 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 1 OPERATION

1.1 Starting The Engine



DANGER! Always be sure the blade is disengaged and clear the path of the blade before starting the engine. Failure to do so will result in serious injury or death.

Operate your engine/machine only in well ventilated areas. Exhaust gases can cause nausea, delirium and potentially death unless adequate ventilation is present.

Never operate an engine with a fuel or oil leak. The leaking fuel or oil could potentially come in contact with hot surfaces and ignite into flames.



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.

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 moving the choke lever to the start position.
2. 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 open the choke all the way by moving the choke lever to the off position.

ENGINE SHUTOFF

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

SECTION 1

SECTION 2 MAINTENANCE

2.1 Maintenance

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.

2.2 Safety

Use caution when performing maintenance or service to the engine.



DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc.

Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members.

Never touch or perform service functions on a hot engine.



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

Wear proper (eye, breathing, hand, and foot) safety equipment when performing service functions.

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.



2.3 Cooling System

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

Clean any screens, cooling fins, and all external surfaces.

Remove any dust, dirt, or oil.

See engine manual for further instructions.

2.4 Air Filter & Pre-Cleaner

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.

2.5 Fuel Filter

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

2.6 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. Always wear safety goggles and a face shield when working near batteries. Failure to do so will cause serious injury.



WARNING! Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

2.7 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
G25	3600	1800

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

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 3600. 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.

2.8 Miscellaneous Maintenance

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



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

Inspect the spark plugs every 100 hours of operation.

Remove any deposits and adjust gap if necessary.

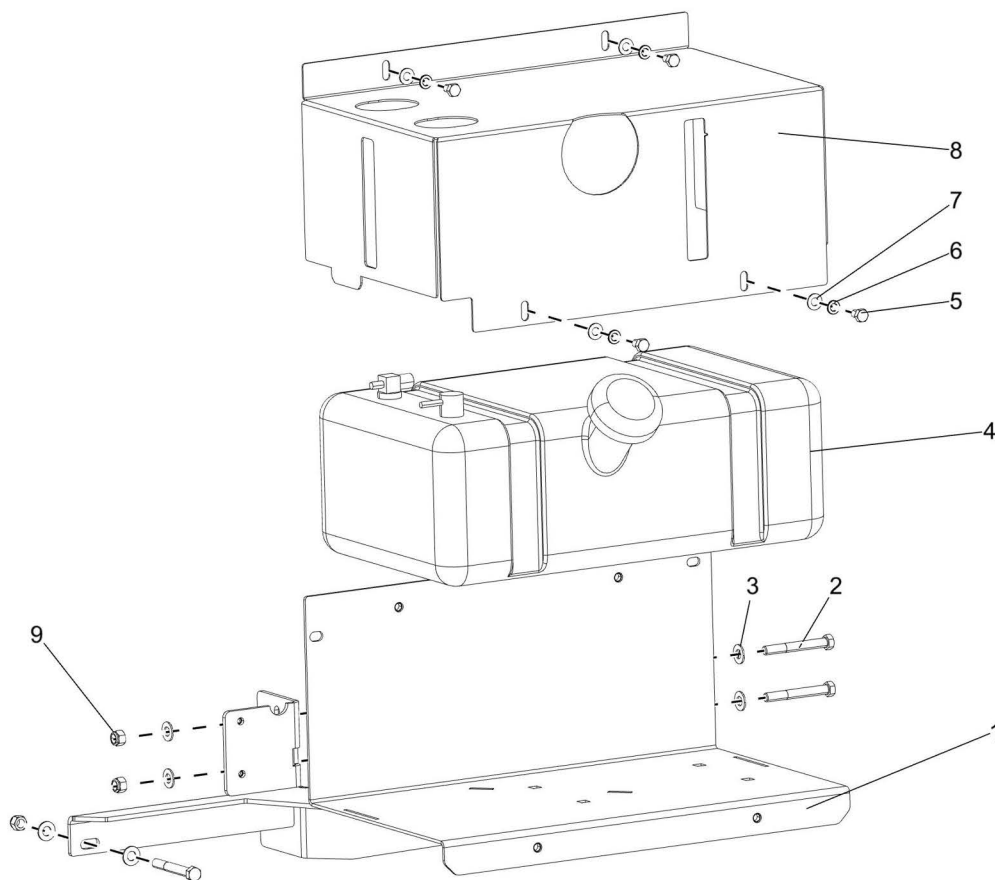
Review the manufacturer's engine manual for maintenance intervals.

See engine manual for further information.

SECTION 3 REPLACEMENT PARTS

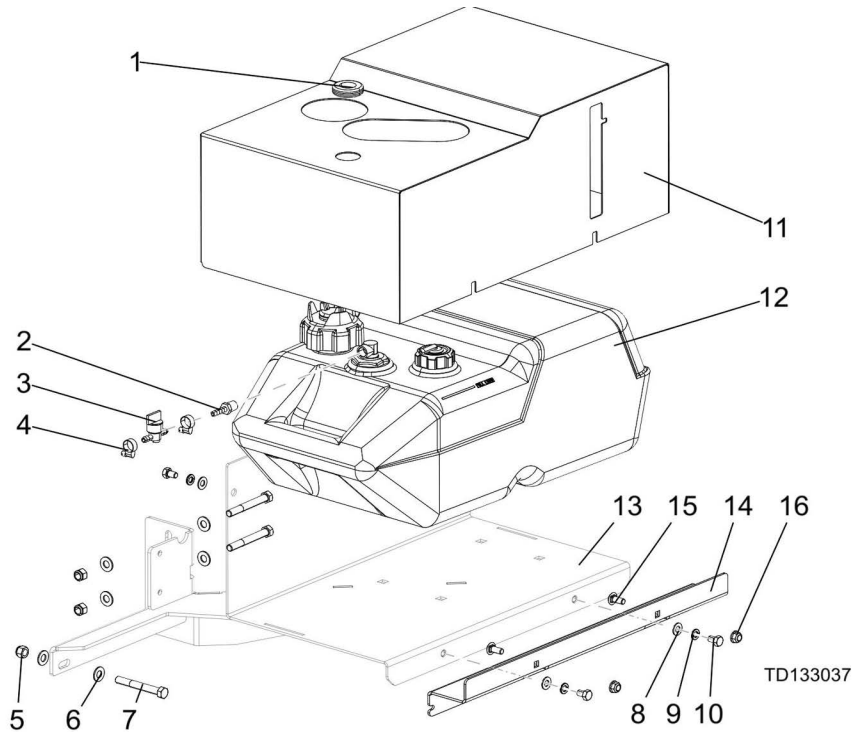
3.1 Fuel Tank A6.18

TD103816
TD103816_1



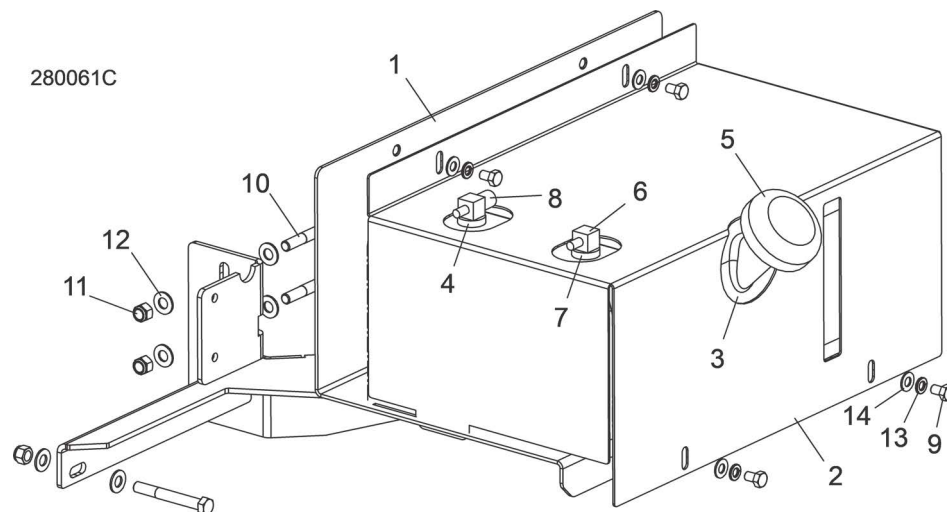
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	103816	Assy, Fuel Tank Tray		1
1	103810	Weldment, Fuel Tank Tray		1
2	F05007-73	Bolt, 3/8-16x3 HH Gr5		3
3	F05011-3	Washer, 3/8 Flat SAE		6
4	103878	Can, Gas 5 Gallon		1
5	F05006-15	Bolt, 5/16-18x1/2 HH Gr5		4
6	F05011-13	Washer, 5/16 Split Lock		4
7	F05011-17	Washer, 5/16 SAE Flat		4
8	103867	Cover, Fuel Tank		1
9	F05010-10	Nut, 3/8-16 Hex Nyl Lock		3
	R02423-1	Hose, Fuel 3/16" EPA 15G CARB		5.333 Ft
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		4.833 Ft

3.2 Fuel Tank 4/2022 - A6.17



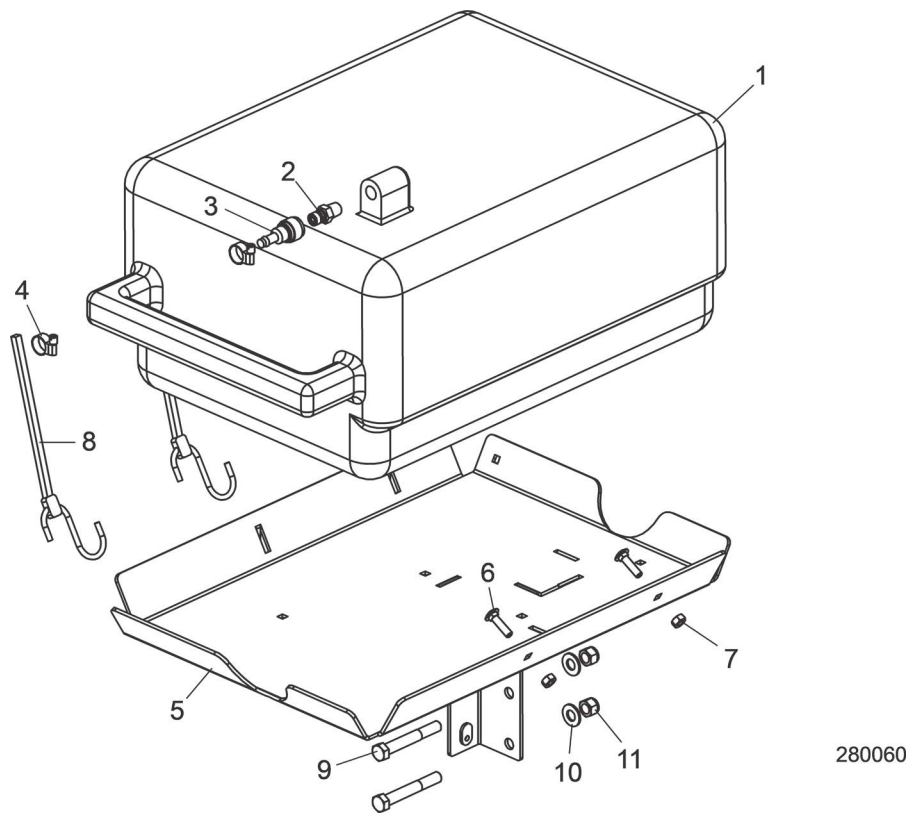
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	133037	Assembly, Fuel Tank Tray, LT28/35		
1	P702	Grommet, 7/8In IDx1 1/4In Groove Dia		1
2	P05393	Barb, 1/4 Hose 1/4NPT		1
3	P851	Valve, Fuel, In Line Shut Off		1
4	P649	Hose Clamp, 7/32in-5/8in		2
5	F05010-10	Nut, 3/8-16 Hex Nyl Lock		3
6	F05011-3	Washer, 3/8 Flat SAE		6
7	F05007-73	Bolt, 3/8-16x3 HH Gr5		3
8	F05011-17	Washer, 5/16 SAE Flat		4
9	F05011-13	Washer, 5/16 Split Lock		4
10	F05006-15	Bolt, 5/16-18x1/2 HH Gr5		4
11	130288	Cover Weldment, Fuel Tank, Domestic		1
12	130286	Fuel Tank, Domestic 6 Gal		1
	133484	Assy, 6.50" Portable Tank Pick Up		1
	133483	Cap, 2.25" One Way Kelch		1
	133438	Kit, Slant Roll Valve		1
	133485	Cap, Ultra 3/6/12 Lens		1
13	103810	Weldment, Fuel Tank Tray		1
14	130283	Extension, Fuel Tray		1
15	F05006-86	Bolt, 5/16-18x3/4 Carriage		2
16	F05010-221	Nut, 5/16-18 Flanged Hex Nylock		2
	R02423-1	Hose, Fuel 3/16" EPA 15G CARB		6 Ft
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		6 Ft

3.3 Fuel Tank A6.12 - 4/2022



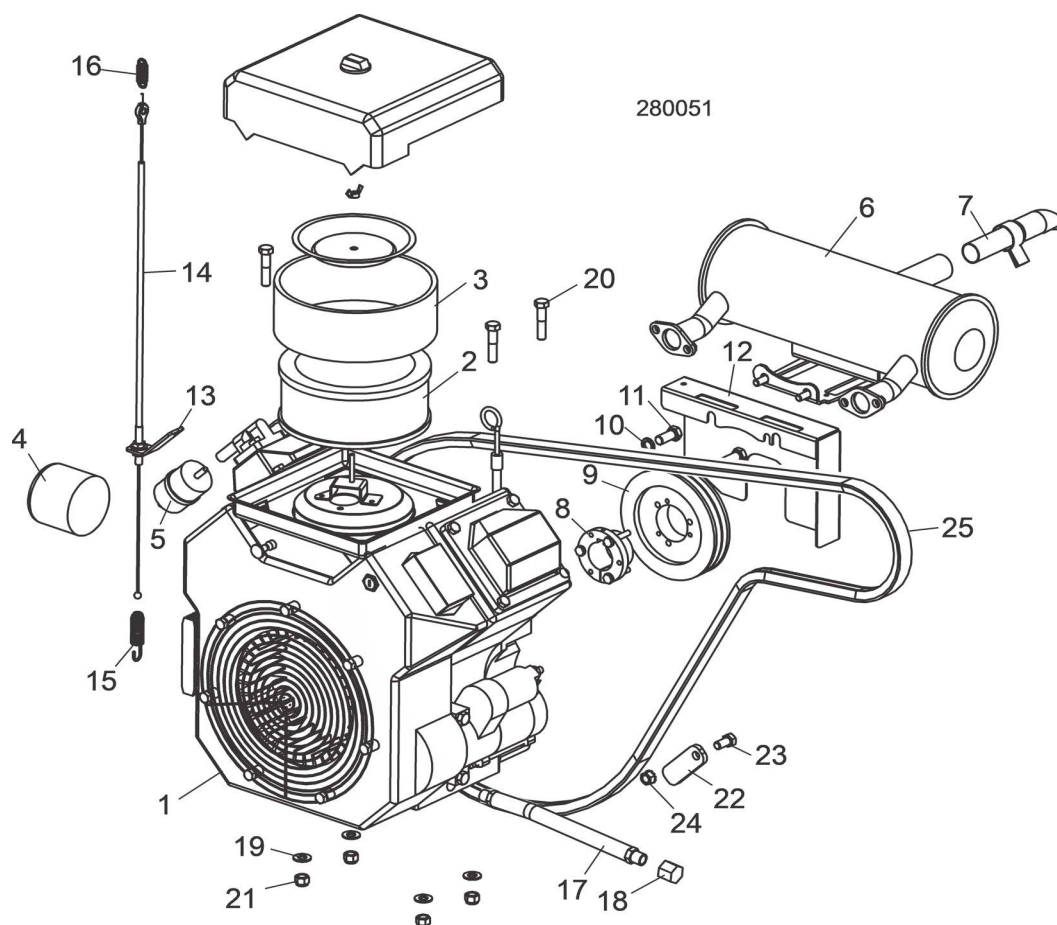
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	103816	TRAY ASSEMBLY, LT28/35 FUEL TANK		1
1	103810	Weldment, Fuel Tank Tray		1
2	103867	Cover, Fuel Tank		1
3	103878	Tank, 5 Gallon Low Pro EPA Fuel		1
4	061250	Grommet, Shut Off		1
5	061251	Gas Cap, LT15		1
6	061252	Valve, Sash		1
7	061253	Grommet, Sash Valve		1
8	074943	Fitting, Fuel Pick-Up With Shut-Off		1
9	F05006-15	Bolt, 5/16-18 x 1/2" Hex Head Grade 5		4
10	F05007-73	Bolt, 3/8-16 x 3" Hex Head Grade 5		3
11	F05010-10	Nut, 3/8-16 Hex Nyloc		3
12	F05011-3	Washer, 3/8" Flat SAE		6
13	F05011-13	Washer, 5/16" Split Lock		4
14	F05011-17	Washer, 5/16" SAE Flat		4
	R02423-1	Hose, Fuel 3/16" EPA 15G CARB		6 Ft
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		6 Ft

3.4 Fuel Tank Rev. A6.10 - A6.11



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	076479	TRAY ASSEMBLY, LT28 GAS CAN		1
	074643	Tank Assembly, 6 Gallon Gas Service		1
1	076478	Tank, Gasoline	Available in assemblies only.	1
2	015583	Fitting, 1/4" NPT Male Quick Disconnect		1
3	015582	Fitting, Female Quick Disconnect Barb		1
4	P649	Clamp, 7/32" - 1/2" Hose		2
5	076480	Tray Weldment, LT28 Fuel		1
6	F05005-34	Bolt, 1/4-20 X 1" Carriage		2
7	F05010-21	Nut, 1/4-20 Swaged		2
8	P11668	Strap, 20 Rubber W/Hooks		2
9	F05007-29	Bolt, 3/8-16 x 2 3/4" Hex Head		2
10	F05011-3	Washer, 3/8" SAE Flat		2
11	F05010-10	Nut, 3/8-16 Hex Nylon Lock		2
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		6.1 Ft

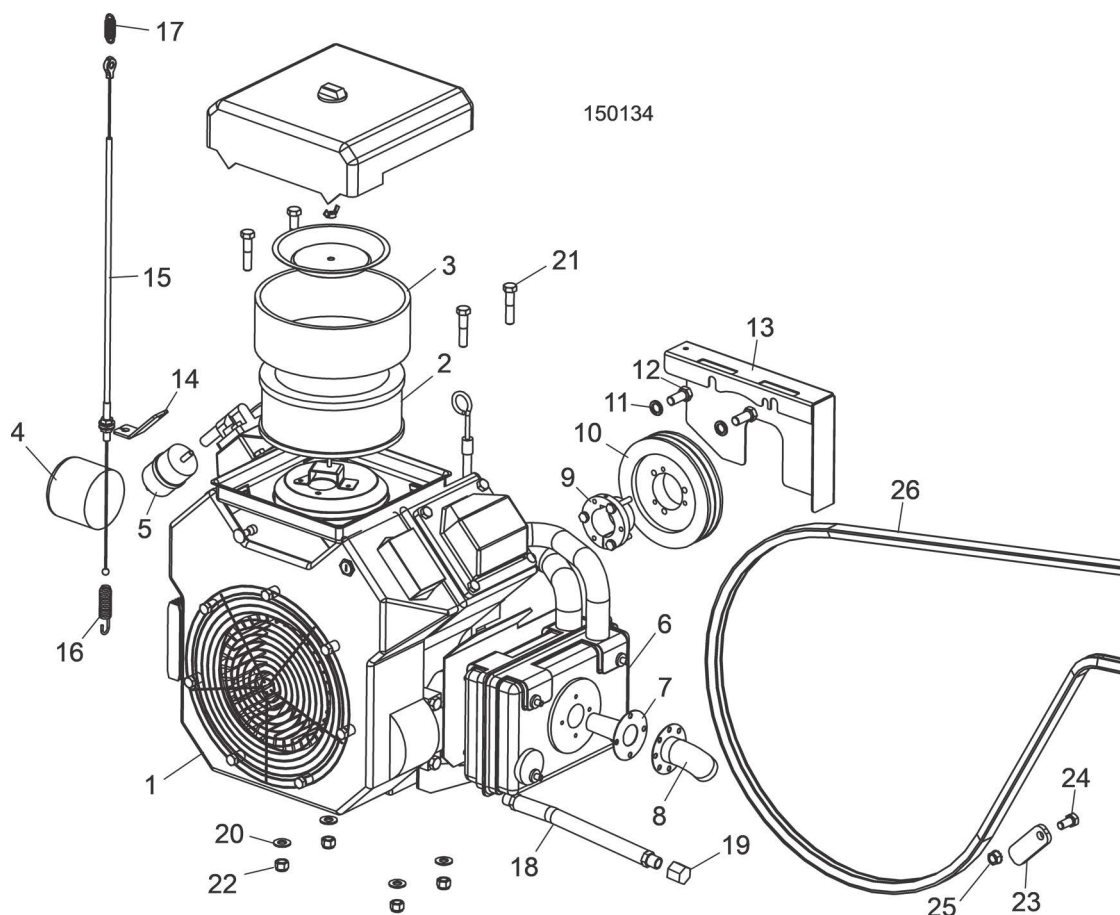
3.5 Engine Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	015993	MANUAL, KOHLER CH25 OWNER'S		1
	015994	MANUAL, KOHLER CH25 SERVICE		1
	P12393	COVER, ENGINE		1
	003295	ENGINE ASSEMBLY, LT28 G25		1
1	074351A	Engine, 25HP Kohler Gas CH740 w/Key	074351 replaces 012832 25Hp Kohler CH25 Spec PA-CH730-0010 Engine (4/14).	1
	046943	Regulator, Overvolt Kohler		1
	016290	Gasket Kit, Kohler CH25 Head #24-757-31		1
	P12734	Filter Kit, Kohler Air/Pre #24-883-03-S1		1
2	P12736	Filter, Kohler Air #24-083-03	Available in assemblies only.	1
3	P12737	Pre Cleaner, Kohler #24-083-05	Available in assemblies only.	1
	061371	Starter, Kohler Engine KH# 25 098 21S		1
	P12757	Plug, RC12YC Kohler Spark #12-132-02		2
	016079	Module Kit, Kohler Ignition #25-584-14-S		2
4	014717	Filter, Kohler Oil #52-050-02		1
5	P12758	Filter, Kohler Fuel #24-050-13	Kohler #24-050-13 9-12 micron filter replaces #240-050-10 8-10 micron filter originally supplied.	1
	061157	Kit, Valve Cover w/ Lift Pump 24 559 10S		1
	061150	Switch, Ignition G18/25	Not shown	1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
6	003294	Muffler Assembly, Kohler #24-786-10S		1
7	036684	Arrestor, Kohler Spark #24-18901-S		1
8	016535	Bushing, 1 7/16" SH		1
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
	061072	Switch, G18/G25 Ignition Plastic		1
NO EXTERNAL ALTERNATOR. ENGINE USES INTERNAL CHARGING SYSTEM.				
	016023	CARBURETOR KIT, 25HP KOHLER ANTI-ICING #25-755-65-S		1
	061303	SOLENOID, FUEL SHUT OFF 24-757-01-S		1
	024718	HARNESS, BATTERY TO ENGINE		1
19	F05011-3	WASHER, 3/8" SAE FLAT		4
20	F05007-119	BOLT, 3/8-16 X 1 3/4" HEX HEAD GRADE 5		4
21	F05010-10	NUT, 3/8-16 HEX NYLON LOCK		4
22	048237	SUPPORT WELDMENT, DRIVE BELT		1
23	F05007-118	BOLT, 3/8-16 X 3/4" HEX HEAD GRADE 5		1
24	F05010-19	NUT, 3/8-16 SELF-LOCKING HEX		1
25	047751	BELT, 2/3VFL900 DRIVE		1
	016023	CARB KIT, 25HP KOHLER DE-ICING 2475565S		1

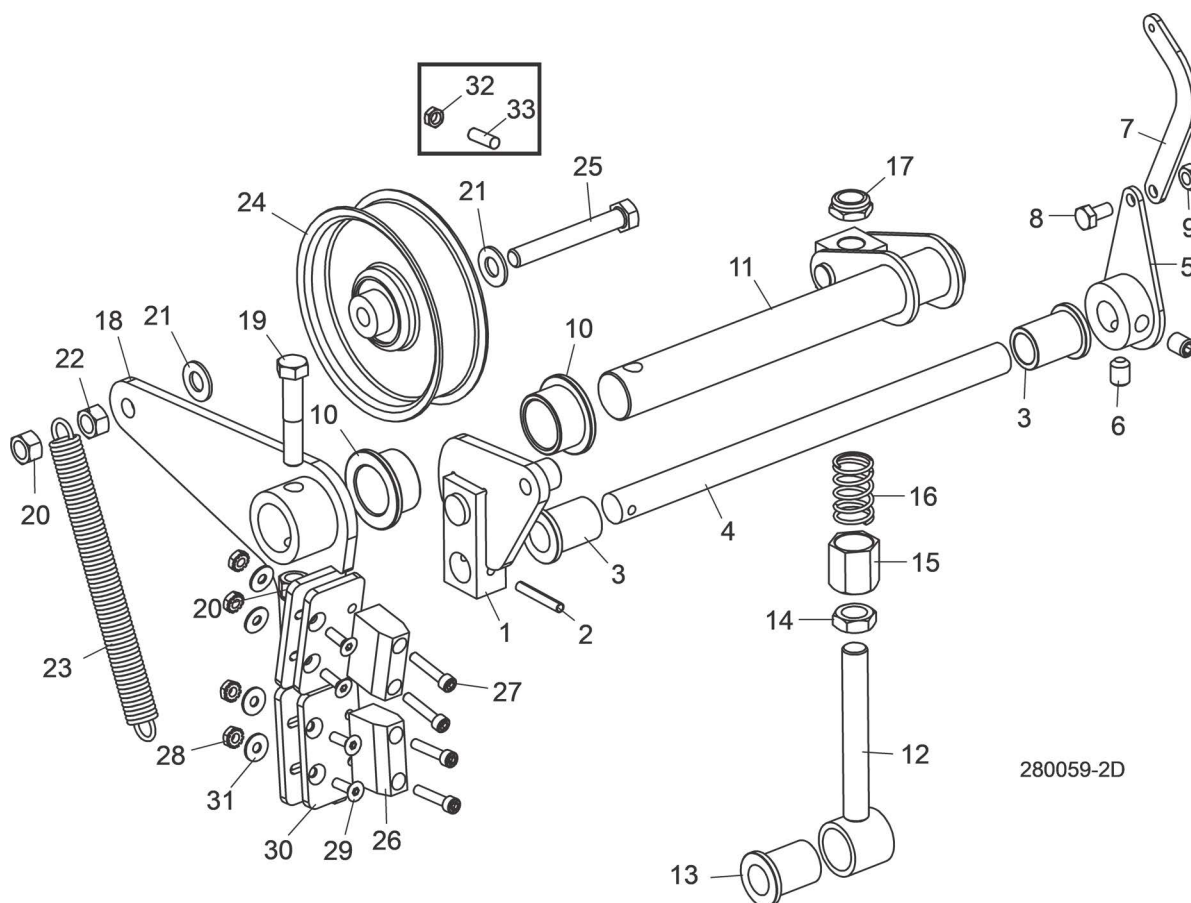
3.6 Engine Assembly Rev. A1.00 - A4.01



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	015993	MANUAL, KOHLER CH25 OWNER'S		1
	015994	MANUAL, KOHLER CH25 SERVICE		1
	047740	ENGINE ASSEMBLY, LT15/28 G25		1
1	012832	Engine, 25Hp Kohler CH25 Spec PA 68600	012832 Engine changed to Spec PA-CH730-0010 without muffler (2/07).	1
	016290	Gasket Kit, Kohler CH25 Head #24-757-31		1
	P12734	Filter Kit, Kohler Air/Pre #24-883-03-S1		1
2	P12736	Filter, Kohler Air #24-083-03	Available in assemblies only.	1
3	P12737	Pre Cleaner, Kohler #24-083-05	Available in assemblies only.	1
	P12757	Plug, RC12YC Kohler Spark #12-132-02		2
	016079	Module Kit, Kohler Ignition #KH24-584-11 (Qty. 2)		1
4	014717	Filter, Kohler Oil #52-050-02		1
5	P12758	Filter, Kohler Fuel #24-050-13	Kohler #24-050-13 9-12 micron filter replaces #240-050-10 8-10 micron filter originally supplied.	1
6	051569	Muffler Assembly, Kohler #24-786-19	Muffler, Deflector and Spark Arrestor no longer supplied with engine (2/07).	1
7	016495	Deflector, Kohler Muffler #12-755-28		1
8	016496	Arrestor, Kohler Spark #12-189-02		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	016137	Carburetor Kit, Kohler High-Altitude Compensation #24-755-01	Kit obsolete 9/01 due to EPA requirements (entire carberator should be replaced). For operation up to 5,000 ft. elevation. Eliminates rough running caused by lean fuel mixture at high altitude. A loss of power will result and the carburetor jets must be replaced with the standard jets to operate at normal elevations.	1
9	016535	Bushing, 1 7/16" SH		1
10	047742	Pulley, 3V5.6 x 2" SH		1
11	F05011-48	Washer, 7/16" Split Lock		2
12	F05007-145	Bolt, 7/16-14 x 1" Hex Head Grade 5		2
13	016493	Plate, Engine Guard		1
14	047750	Plate, Throttle Cable Mount		1
15	047749	Cable, LT15 G25 Throttle		1
16	016033	Spring, Throttle		1
17	015952	Spring, Throttle Extension		1
18	P10082	Hose, 3/8" NPT Oil Drain		1
19	P04332	Cap, Oil Drain Hose		1
	024718	HARNESS, BATTERY TO ENGINE		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
	061324	CARB KIT, G25 DE-ICING 24 755 69S		1

3.7 Throttle/Clutch Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	065574	BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE	Replaces 049139 to make clutch pivot stop adjustable (Rev. A6.05). T	1
2	F05012-16	PIN, 3/16" X 1 1/4" ROLL		1
3	016486	BUSHING, 5/8" ID X 7/8" OD X 1 1/4" LONG FL BRONZE		2
4	049340	SHAFT, LT28 THROTTLE		1
5	034815	ACTUATOR WELDMENT, THROTTLE LT15D&G		1
6	F05007-68	SCREW, 3/8-16 X 3/8" SOCKET HEAD CUP PT SET		2
7	034818	LINKAGE, THROTTLE LT15D&G		1
8	F05005-15	BOLT, 1/4-20 X 1/2" HEX HEAD		1
9	F05010-21	NUT, 1/4-20 SWAGED		1
10	P737	BUSHING, 1" X 1 1/4" X 3/4" FLANGED BRONZE		2
11	034608	PIVOT WELDMENT, CLUTCH/BRAKE		1
	034605	LINKAGE ASSEMBLY, W/BEARING		1
12	034604	Boss Weldment, Clutch/Brake Linkage		1
13	016486	Bushing, 5/8" ID x 7/8" OD x 1 1/4" Long Flanged Bronze		1
	038778	NUT ASSEMBLY, 1/2-13 SPRING LOCKING	Spring Locking Nut Assembly 038778 added Rev. A3.00 (replaces F05010-35 1/2-13 Hex Nut and F05011-9 1/2" Split Lock Washer).	1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
14	F05010-31	Nut, 1/2-13 Hex Jam		1
15	038777	Nut, 1/2-13 Spring Lock		1
16	046975	Spring, .72" OD x .576" ID x 1.25L Compression		1
17	F05010-127	Nut, 1/2-13 Half Nylon Lock		1
	065874	BRAKE/CLUTCH ASSEMBLY		1
18	065873	Arm Weldment, Clutch/Brake		1
19	F05007-124	Bolt, 3/8-16 x 2 Hex Head Grade 5		1
20	F05010-10	Nut, 3/8-16 Hex Nyl Lock		2
21	F05011-3	Washer, 3/8" Flat SAE		3
22	F05010-25	Nut, 3/8-16 Swaged		1
23	034810	Spring, Idler Arm LT15/D/E/G		1
24	034602	Idler, 4" O.D. x 3/8" Bore		1
25	F05007-125	Bolt, 3/8-16 x 2-1/2" Hex Head Grade 5		1
26	016488	Block, LT15 Brake		2
27	F05004-2	Bolt, #10-24 x 1" Socket Head Cup		4
28	F05010-14	Nut, #10-24 Keps		8
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		1
33	F05007-18	SCREW, 3/8-16 X 1 1/4 SHOP SET		1