

# **LT35 D17 Engine**

## **Safety, Operation, Maintenance & Parts Manual**

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**007333 D17 Kohler/Lombardini** **rev. D**

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***Safety is our #1 concern!***

*June 2011*

*Form #1724*

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**Used with:**

**LT35**

**rev. A1.00- A6.10**

**LT35HD**

**rev. A1.00- A6.10**

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**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](http://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](http://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](http://woodmizer.com/patents)

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**SECTION 1 OPERATION**

**SECTION 2 MAINTENANCE**

2.2 Cooling System ..... 2-1  
2.3 Air Filter & Pre-Cleaner ..... 2-1  
2.4 Fuel Filter ..... 2-1  
2.5 Battery ..... 2-2  
2.6 Alternator Belt..... 2-2  
2.7 ..... 2-2

**SECTION 3 REPLACEMENT PARTS**

3.4 Throttle/Clutch Assembly ..... 3-5

## 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 all persons are out of the path of the blade before starting the engine. Failure to do so will result in serious injury.

Operate your engine/machine only in well ventilated areas. The exhaust gases of your engine 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 engine exhaust could ignite surrounding materials, causing serious injury or death.

#### ENGINE START

1. See the engine manufacturer's manual for lubricating oil recommendations for specific temperature ranges.
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. Turn the key switch to the start (#2) position and release.

#### ENGINE SHUTOFF

1. Disengage the clutch handle to stop the blade if necessary.
2. Turn the key switch to the off (#0) position.

## SECTION 2 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.



**IMPORTANT!** 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.



### 2.1 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 resulting in possible injury.

**DANGER!** Engine components can become very hot during operation. Avoid contact with any part of a hot engine. The exhaust components of your engine are especially hot during and following operation. Contact with hot engine components can cause serious burns. Therefore, never touch or perform service functions on a hot engine. Allow the engine to cool sufficiently before beginning any service function.



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

**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.

### 2.2 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.

### 2.3 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.

### 2.4 Fuel Filter

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

## 2.5 Battery

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



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

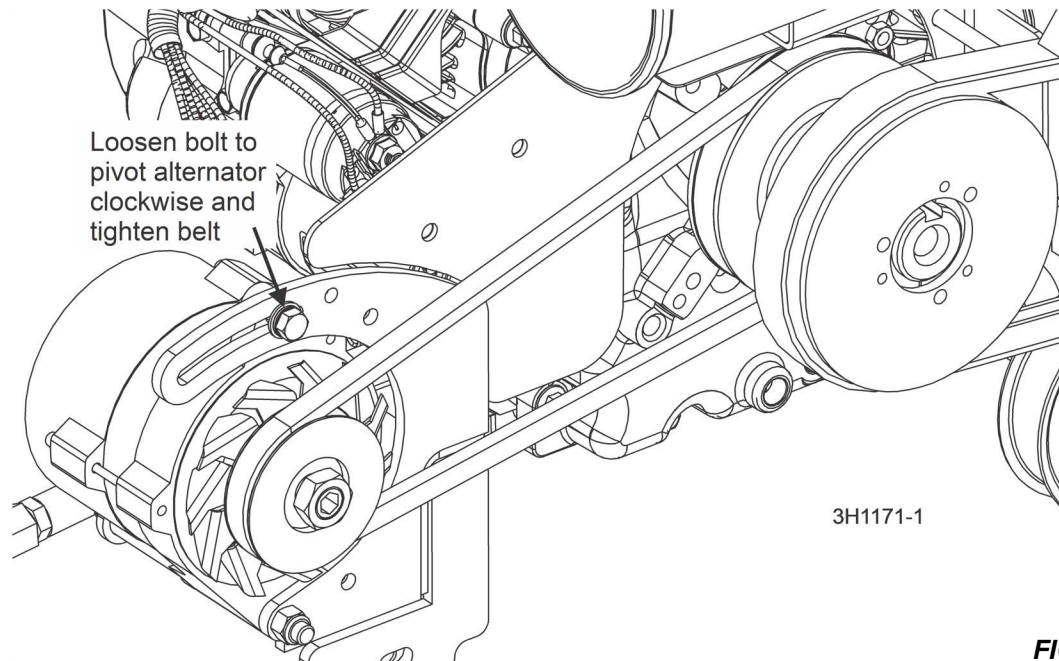
Always wear safety goggles and a face shield when working near batteries. Failure to do so will cause serious injury.



**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.

## 2.6 Alternator Belt

1. Adjust the alternator belt as needed.
2. Check the alternator belt for tension and wear when battery is not charging properly or when the alternator belt is squealing.
3. To tighten the belt, loosen the adjustment bolt and lock washer.
4. Pivot the alternator away from the motor until the belt has 3/16" (5 mm) deflection with a 5 lb. deflection force.
5. Retighten the adjustment bolt.

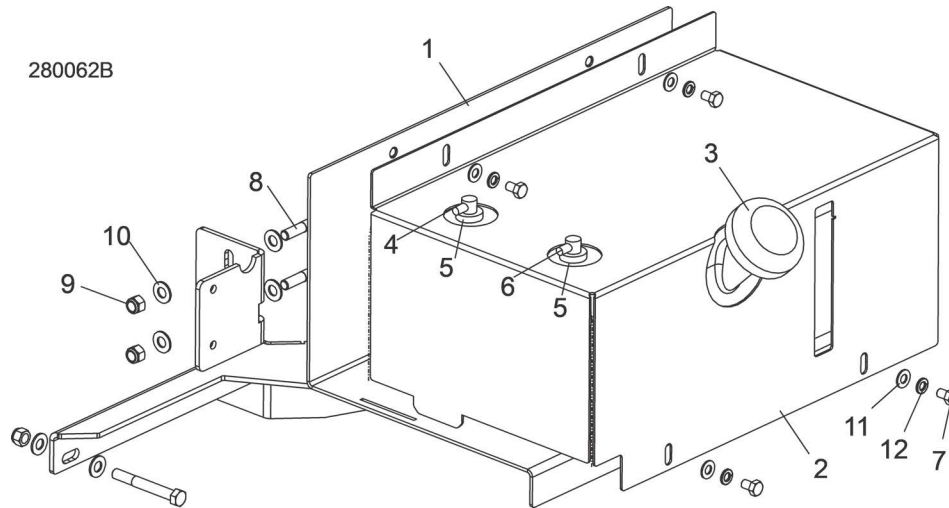


**FIG. 2-1**

## 2.7

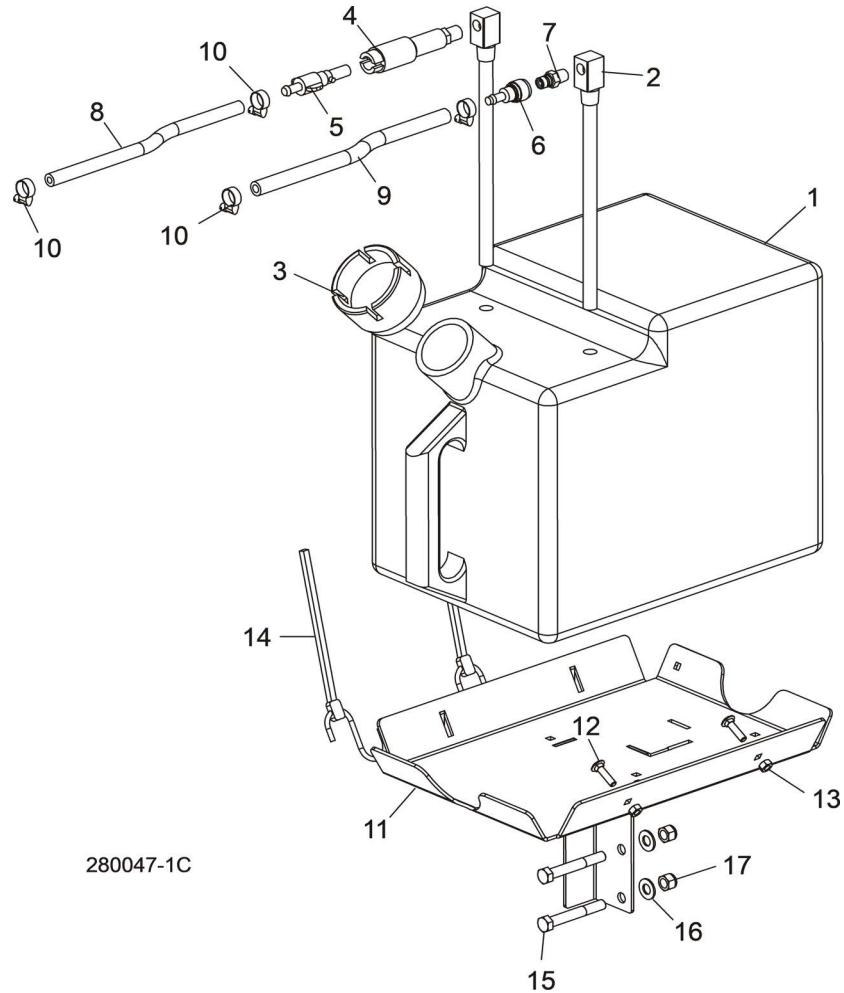
## SECTION 3 REPLACEMENT PARTS

### 3.1 Fuel Tank *Rev. A6.07+, HD Rev. A6.08+*



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	074829	<b>TRAY ASSEMBLY, LT28/35 FUEL TANK</b>		1
<b>1</b>	103810	Weldment, Fuel Tank Tray		1
<b>2</b>	103867	Cover, Fuel Tank		1
	103928	Tank, 5 Gallon Low Pro Diesel		1
<b>3</b>	061257	Cap, Fuel Tank Diesel 080185BE		1
<b>4</b>	061255	Fitting, Pick-Up/Tube Diesel 468871A		1
<b>5</b>	061250	Grommet, Shut Off 046881		2
<b>6</b>	061256	Fitting, Return/tube Diesel 468489		1
<b>7</b>	F05006-15	Bolt, 5/16-18 x 1/2" Hex Head Grade 5		4
<b>8</b>	F05007-73	Bolt, 3/8-16 x 3" Hex Head Grade 5		3
<b>9</b>	F05010-10	Nut, 3/8-16 Hex Nyloc		3
<b>10</b>	F05011-3	Washer, 3/8" Flat SAE		6
<b>11</b>	F05011-13	Washer, 5/16 Split Lock		4
<b>12</b>	F05011-17	Washer, 5/16 SAE Flat		4
	R02423-1	Hose, Fuel 3/16" EPA 15G CARB	R02423-1 replaced R02423-3 after 2/1/2021 per ECN 37794.	6 Ft
	R02423-3	Hose, Fuel 5/16" EPA 15G CARB		6 Ft
	R02423-2	Hose, Fuel 1/4" EPA 15G CARB		6 Ft

**3.2 Fuel Tank Rev. A1.00 - A6.06, HD Rev. A1.00 - A6.07**

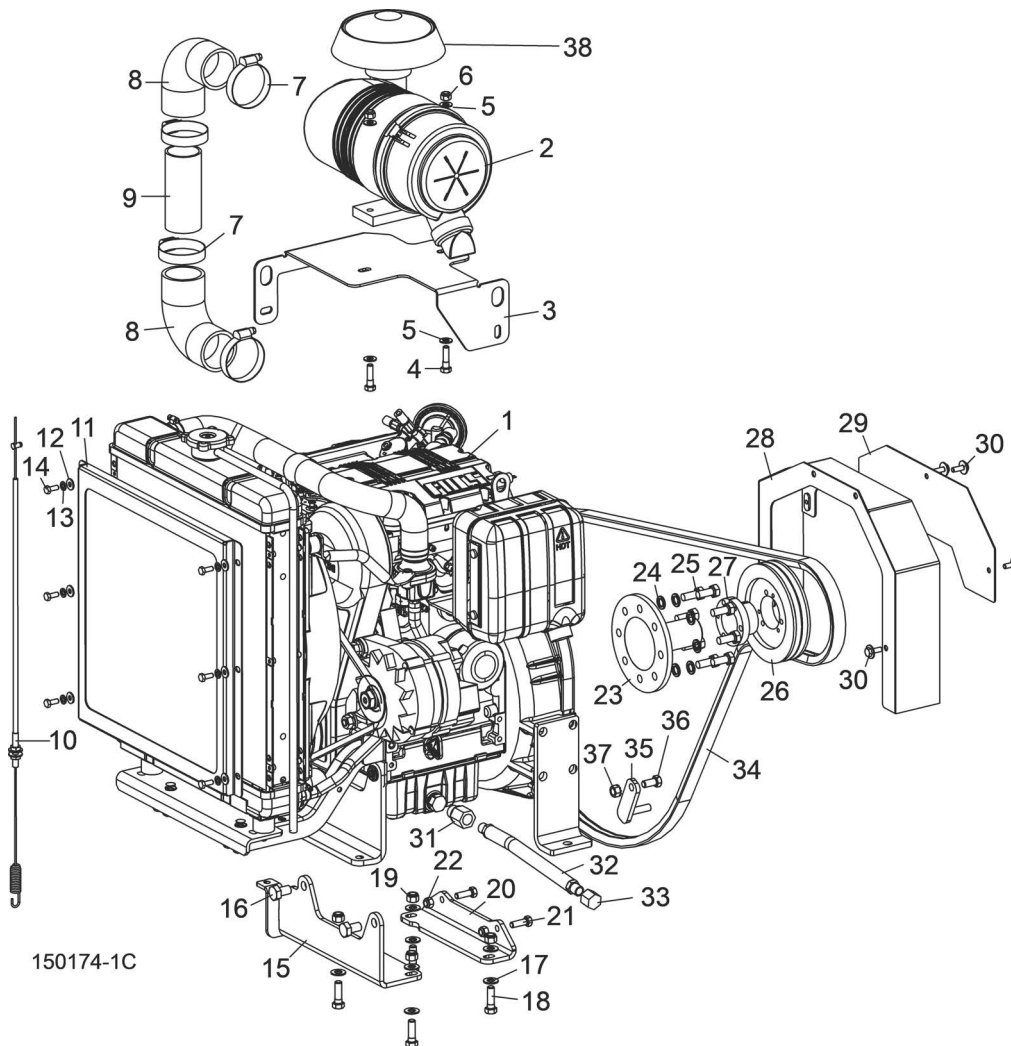


280047-1C

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	038580	<b>TRAY ASSEMBLY, LT28 DIESEL CAN</b>		1
1	P12166	Tank, 5-Gallon Diesel	Available in assemblies only.	1
2	P12172	Pickup, 9" Fuel		1
3	P09683	Cap, 3 or 5-Gallon Fuel Tank		1
4	P12175	Fitting, 1/4" NPT Plastic Female Disconnect		1
5	P642	Hose, 1/4" ID Fuel		8 Ft
6	016338	Hose, 5/16" Fuel Line		8 Ft
7	P649	Clamp, 7/32 - 1/2 Hose		4
8	P12176	Fitting, 1/4" NPT Plastic Male Disconnect		1
9	015582	Fitting, Female Quick Disconnect Barb		1
10	015583	Fitting, 1/4" NPT Male Quick Disconnect		1
11	048600	Tray Weldment, LT28 Fuel		1
12	F05005-34	Bolt, 1/4-20 X 1" Carriage		2
13	F05010-21	Nut, 1/4-20 Swaged		2
14	P11258	Strap, 24 Rubber W/Hooks		2
15	F05007-29	Bolt, 3/8-16 x 2 3/4" Hex Head		2
16	F05011-3	Washer, 3/8" SAE Flat		2
17	F05010-10	Nut, 3/8-16 Hex Nylon Lock		2



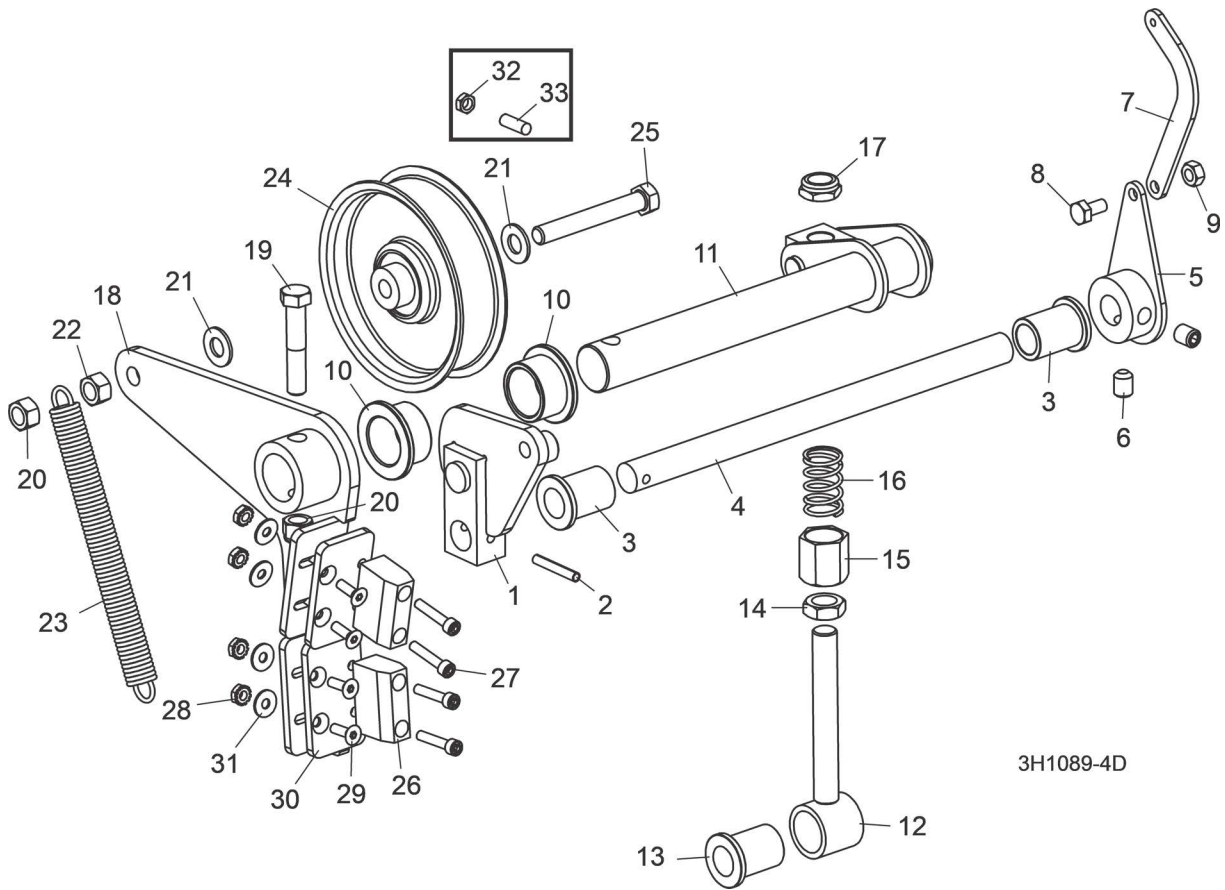
### 3.3 Engine Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	007333	Engine Assembly, 18HP Diesel		1
1	007332	Engine, 18HP Kohler Diesel Model KDW702	Available in assemblies only.	1
2	007401	Filter Assembly, Kohler #ED0037004550-S		1
	007613	Filter, Kohler Secondary Air #ED0021751250-S		1
	007408	Filter, Kohler Primary Air #ED0021751240-S		1
	007614	Motor, Kohler Starter #ED0058402240-S		1
	065408	Alternator, Kohler 65A #ED0011572700-S		1
	065409	Belt, Kohler Fan #ED0024403160-S		1
	061187	Filter, Kohler/Lombardini Oil #ED0021752830-S		1
	061188	Filter, Kohler/Lombardini Fuel #ED0021752880-S		1
	014557	Switch Kit, Oil Pressure w/Gasket		1
	014279	Switch, Diesel Fuel Shut-Off		1
	014289	Pump, Diesel Fuel		1
	014278	Plug, Diesel Glow		2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
3	062308	Bracket, Air Filter Mount		1
4	F05006-18	Bolt, 5/16-18 x 1 1/4" Hex Head Full Thread		2
5	F05011-17	Washer, 5/16" SAE Flat		4
6	F05010-20	Nut, 5/16-18 Self-Locking Hex		2
7	P09895	Clamp, 2 1/2" Hose		4
8	007394	Elbow, 90° x 2" ID Rubber		2
9	007395	Tube, 1 3/4" ID x 2" OD x 4"		1
10	007392	Cable, LT15 D18		1
11	007465	Guard Weldment, D18 Radiator		1
12	F05011-11	Washer, 1/4" SAE Flat		6
13	F05011-14	Washer, 1/4" Split Lock		6
14	F05004-219	Bolt, M6 x 1.0 x 16mm Hex Head		6
15	007427	Bracket Weldment, Rear D18 Mount		1
16	F05004-251	Bolt, M12 x 1.75 x 20mm Hex Head Full Thread		2
17	F05011-3	Washer, 3/8" SAE Flat		8
18	F05007-123	Bolt, 3/8-16 x 1 1/4" Hex Head Grade 5		4
19	F05010-10	Nut, 3/8-16 Hex Nylon Lock		4
20	007426	Bracket, D18 Front Mount		1
21	F05006-27	Bolt, 5/16-18 x 1" Hex Head Grade 5		2
22	F05010-58	Nut, 5/16-18 Hex Nylon Lock		2
23	014024	Shaft, Diesel Engine Drive		1
24	F05011-88	Washer, 10mm Split Lock		8
25	F81003-11	Bolt, M10-1.5 x 24mm Hex Head Grade 8.8		8
26	047742	Sheave, 3V5.6 x 2-SH		1
27	007338	Bushing, SH - 1 9/16"		1
28	007336	Guard Weldment, Motor Pulley		1
29	007344	Cover, Engine Pulley Guard		1
30	F05005-134	Bolt, 1/4-20 x 3/4" Hex w/Conical Washer Head		4
31	065163	FITTING, M18-3/8 NPT ADAPTER		1
32	P10082	HOSE, 3/8 NPT X 9 5/8" RUBBER		1
33	P04332	CAP, 3/8" PIPE GALVANIZE		1
34	047751	Belt, 2/3VFL900 Drive		1
35	048237	Support Weldment, Drive Belt		1
36	F05007-118	Bolt, 3/8-16 x 3/4" Hex Head Grade 5		1
37	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
38	007402	Rain cap d17		1

### 3.4 Throttle/Clutch Assembly



3H1089-4D

REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	065574	<b>BLOCK WELDMENT, LINKAGE CLUTCH/BRAKE</b>	Replaces 049139 to make clutch pivot stop adjustable (Rev. A1.01).	1
2	F05012-16	<b>PIN, 3/16" X 1 1/4" ROLL</b>		1
3	016486	<b>BUSHING, 5/8" ID X 7/8" OD X 1 1/4" LONG FL BRONZE</b>		2
4	049340	<b>SHAFT, LT28 THROTTLE</b>		1
5	034815	<b>ACTUATOR WELDMENT, THROTTLE LT15D&amp;G</b>		1
6	F05007-68	<b>SCREW, 3/8-16 X 3/8" SOCKET HEAD CUP PT SET</b>		2
7	034818	<b>LINKAGE, THROTTLE LT15D&amp;G</b>		1
8	F05005-15	<b>BOLT, 1/4-20 X 1/2" HEX HEAD</b>		1
9	F05010-21	<b>NUT, 1/4-20 SWAGED</b>		1
10	P737	<b>BUSHING, 1" X 1 1/4" X 3/4" FLANGED BRONZE</b>		2
11	034608	<b>PIVOT WELDMENT, CLUTCH/BRAKE</b>		1
	034605	<b>LINKAGE ASSEMBLY, W/BEARING</b>		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	<b>NUT ASSEMBLY, 1/2-13 SPRING LOCKING</b>		1

### 3 Replacement Parts

Throttle/Clutch Assembly

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	<b>BRAKE/CLUTCH ASSEMBLY</b>	Replaces Brake/Clutch Assembly 034603 to improve durability (Rev. A2.01).	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	<b>NUT, 3/8-16 JAM</b>		1
33	F05007-18	<b>SCREW, 3/8-16 X 1 1/4 SHOP SET</b>		1