

# **G18 Engine**

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

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**1987 LT30  
1987 LT40**

**rev. AG - C3  
rev. AM - C4**

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

*December 1996*

*Form #591*

See page 25 for these revisions:

**1992 LT30  
1992 LT40**

**rev. C4 - F3  
rev. C5 - F4**

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## SECTION 1 SAFETY & GENERAL INFORMATION



This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** refers to hazards that can cause death or serious, irreversible personal injury. The word **WARNING** suggests a safety hazard that can cause personal injury. **CAUTION** refers to hazards that can cause damage to the equipment or property only.

Read all safety instructions before operating this equipment and observe all safety warnings! Read the manufacturer's operation manual and observe any additional safety warnings applicable to the specific make and model you have purchased.

### 1.1 Refueling



**WARNING!** Store gasoline away from sawdust and other flammable materials.

**WARNING!** Do not store gasoline near hot or burning materials.

**WARNING!** Do not smoke near gasoline storage tank or during refueling.

### 1.2 Engine Operation



**DANGER!** Do not operate engine in enclosed areas. Carbon Monoxide poisoning may occur.

**DANGER!** Do not operate engine without proper and operational spark arrester/muffler.



**WARNING!** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### 1.3 Battery Handling



**WARNING!** Batteries can explode when charging or boosting. Always wear eye protection.

**WARNING!** Keep cigarettes, flames or sparks away from battery.

**WARNING!** Charge the battery in a well-ventilated area. Do not attempt to charge a frozen battery.



**CAUTION!** Place a rag over battery vent holes when handling to avoid electrolyte squirting from holes.

## SECTION 2 OPERATION

### 2.1 Starting The Engine

To start the engine:

Turn the key switch on the control panel to the START position and release.

If the engine needs choking to start, pull the choke wire out until the engine starts. Push the choke wire in after the engine starts.

For more information, see the engine manufacturer's operation manual.

If the fuel tank was recently filled or replaced, squeeze the primer bulb once or twice before trying to start the engine. **NOTE:** If pumping problems are experienced, make sure the out-flow end of the hose line is connected to the carburetor. If pumping problems are still experienced, hold the primer bulb in a vertical position while squeezing. This allows the fuel check valve to operate properly.



**WARNING!** Do not start the engine when the clutch/brake lever is in the engaged (down) position. Always be sure the blade is disengaged and all persons are away from the blade before starting the engine.

**WARNING!** Make sure the carriage fwd/rev switch is in the neutral position before turning the key switch to the ON or ACC position. This will prevent unintended carriage movement.

## SECTION 3 MAINTENANCE



**IMPORTANT!** The Wood-Mizer maintenance schedule takes into account the specific use of engines in the Wood-Mizer sawmill. Therefore, the schedule may require certain procedures be performed at different time intervals than found in the engine manufacturer's manuals. Refer to the manufacturer's manual if you need more information on how to perform a procedure or on the engine itself.



**This symbol** identifies the interval (hours of operation) which each maintenance procedure should be performed. "AR" signifies maintenance procedures which should be performed as required.

### 3.1 Air Filter & Pre-Cleaner



Service the pre-cleaner every four hours of operation. Service 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. See the engine manual for further instructions.



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



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

### 3.2 Debris Guard



Clean the debris guard every 8 hours of operation. See engine manual for further instructions.

### 3.3 Engine Oil



Check the oil level every 8 hours of operation. Add oil as necessary. See the engine manual for oil viscosity and grade recommendations.



**IMPORTANT!** During initial break-in, change the oil after the first 5 hours and every 50 hours thereafter. Continue to check oil level every 8 hours of operation and refill as necessary.



### 3.4 Air Cooling System

- 50 Wash the engine or brush off sawdust and debris every 50 hours of operation. Clean the spark arresters, breather pipe, cylinder head and cylinder cooling fins. Remove any dust, dirt or oil. See engine manual for further instructions.

### 3.5 Fuel Filter

- 100 Replace the fuel filter every 100 hours of operation.

### 3.6 Battery

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

**WARNING!** Batteries contain explosive gases. Always wear eye protection and keep face away when charging or boosting battery. Charge battery in well-ventilated area. Keep battery away from hot or burning materials. Avoid spilling electrolyte when handling.

### 3.7 Drive Belt Adjustment

- 50 **See Figure 3-1.** Check the drive belt tension after the first 20 hours, and every 50 hours thereafter. The drive belt should have 7/16" (11 mm) deflection with a 14 lb. deflection force. To adjust the drive belt, remove the two belt covers located underneath the engine. To adjust the drive belt, loosen the bottom adjustment nut and tighten the top adjustment nut.

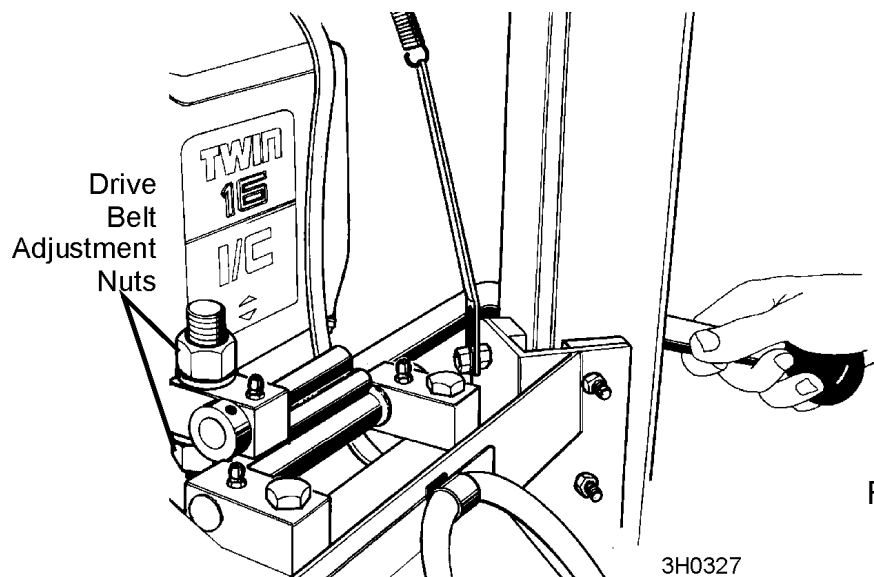


FIG. 3-1



Periodically check all belts for wear. Replace any damaged or worn belts as needed.

### 3.8 Miscellaneous Maintenance



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



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



Clean carbon and lead deposits from the cylinder head every 100 hours of operation. See engine manual for further details.



Adjust the valve clearance every 500 hours of operation. See engine manual for further details.

### 3.9 RPM Adjustments



**DANGER!** Remove the blade from the sawmill before checking engine RPM.



Check the RPM with a tachometer after the first 20 hours of operation and every 200 hours thereafter. High-end RPM should be 3400-3600 RPM and low-end RPM should be 1800 ( $\pm 100$ ).

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

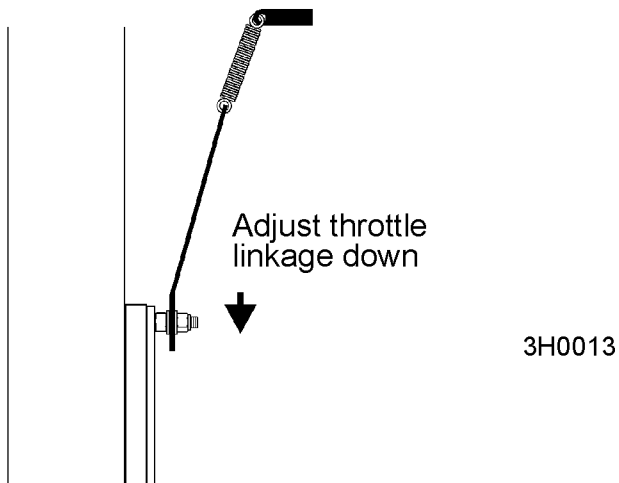
1. Start the engine to measure the low-end RPM.

**See Figure 3-2.** Make sure that the throttle linkage is not affecting the engine RPM while the clutch/brake handle is disengaged.

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.

**See Figure 3-3. NOTE:** The engine should start to throttle as soon as you start moving the clutch handle down. If the engine dies instead, restart the engine and adjust the throttle linkage down as far as possible without affecting low-end RPM. With the engine idling and the clutch disengaged, loosen the mounting bolt and pull the throttle link down to a point just above where it affects the low-end RPM. Retighten the mounting bolt.





**FIG. 3-3**

## SECTION 4 REPLACEMENT PARTS

### 4.1 How To Use The Parts List

- Use the table of contents or index to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (◆) are only available in the assembly listed above the part.

See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (◆) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (◆) indicates M06666 is not available except in subassembly K05555.

<b>4.2 Sample Assembly</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>SAMPLE ASSEMBLY, COMPLETE (INCLUDES ALL INDENTED PARTS BELOW)</b>	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	◆
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	◆
4	Sample Part	F07777-77	1	

**To Order Parts:**

- From the continental U.S., call **1-800-525-8100** to order parts. Have your customer number, vehicle identification number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

# 4

## Replacement Parts Fuel Tank/Tray Assembly

<b>4.3 Fuel Tank/Tray Assembly</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>TANK ASSEMBLY, 3-GALLON RED GASOLINE</b>	A09694 <sup>1</sup>	1	◆
1	Tank, 3-Gallon Red Fuel	P09689 <sup>1</sup>	1	◆
2	Cap, 3 or 5-Gallon Fuel Tank	P09683	1	
3	Fitting, 1/4" NPT 90° Elbow	P09696	1	
4	Fitting, Male Disconnect	P07830 <sup>2</sup>	1	◆
	<b>TRAY ASSEMBLY, FUEL TANK</b>	A09692	1	
5	Tray, Fuel Tank	S09691	1	◆
6	Strap, 15" Rubber	P07461 <sup>3</sup>	2	
	Strap, 24" Rubber	P11258 <sup>3</sup>	2	
7	Bolt, 1/4-20 X 1" Carriage Head	F05005-34	2	
8	Nut, 1/4-20 Hex Lock	F05010-21	2	
	<b>HOSE, FUEL LINE WITH PRIMER BULB</b>	014497 <sup>4</sup>	1	
	Bulb Kit, Fuel Primer Replacement	014496 <sup>4</sup>	1	
9	Bulb, Fuel Primer	014481	1	◆
	Clamp, 7/32 - 1/2 Hose	P649 <sup>4</sup>	2	
	Instruction Sheet, Fuel Primer Bulb Replacement	014496-590	1	
	Hose, 1/4" ID Fuel	P642 <sup>4</sup>	6.5 Ft	
	Clamp, 7/32 - 1/2 Hose	P649 <sup>4</sup>	2	
10	FITTING, 1/4" NPT FEMALE DISCONNECT	P07831 <sup>2</sup>	1	◆
11	<b>O-RING KIT, METAL DISCONNECT FITTINGS</b>	P07832 <sup>5</sup>	1	

<sup>1</sup> 3-Gallon fuel tank A09694 replaced by A12285 5-Gallon tank. Upgrade requires two P11258 24" rubber straps and one P12176 Male Disconnect Fitting sold separately.

<sup>2</sup> Metal Disconnect fittings P07830 and P07831 replaced with plastic fittings P12175 & P12176. Replacement of fittings also requires qty. 1 hose clamp (P649).

<sup>3</sup> Use P07461 15" rubber strap for 3-Gallon fuel tank (replaces M07464 originally supplied). Use P11258 24" rubber strap to secure 5-Gallon fuel tank. Use P11668 20" rubber strap to secure original Unistream 3-gallon tank.

<sup>4</sup> Fuel Line Assembly w/Primer Bulb replaces P10083 originally supplied. UV-resistant primer bulb kit 014496 available separately. Fuel Line P642 replaces R01890-1 originally supplied. Hose Clamp P649 replaces plastic clamp P12374 previously supplied.

<sup>5</sup> Includes O-rings for male and female metal fittings. Fittings may be replaced with plastic fittings P12175 & P12176.

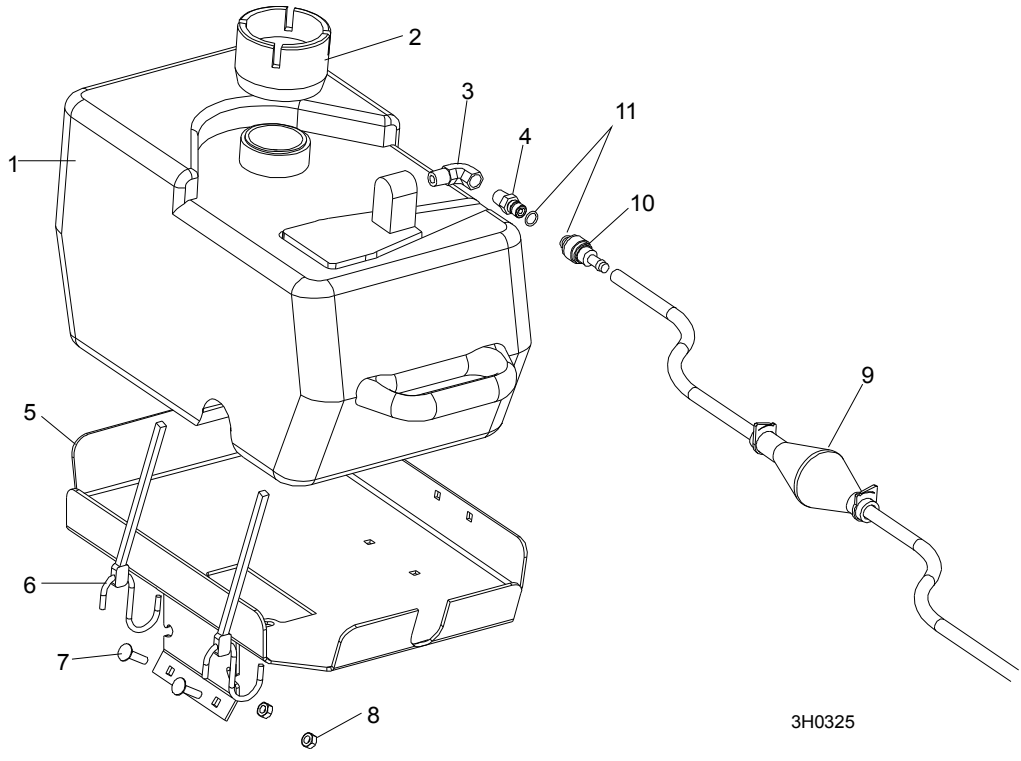


FIG. 4-1

## 4

## Replacement Parts

## Motor Mount Assembly

<b>4.4 Motor Mount Assembly</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
1	PLATE, MOTOR MOUNT	W09543 <sup>1</sup>	1	
	BUSHING ASSEMBLY, MOTOR MOUNT PIVOT	A04127 <sup>2</sup>	2	◆
2	Bushing, Rubber Motor Mount Pivot	P12164	1	
3	Spacer, Motor Mount Pivot	P05041	1	
4	PLATE, MOTOR MOUNT PIVOT BUSHING	S04403	2	
5	BOLT, 5/16-18 X 2 1/2" 'U'	P05039	2	
6	NUT, 5/16-18 HEX LOCK	F05010-6	2	
7	NUT, 1/2-13 NYLON LOCK	F05010-8	2	
8	PLATE, BRAKE STRAP CLAMP	S04195	1	
9	BOLT, 1/2-13 X 1 1/2" HEX HEAD	F05008-3	2	
10	BRACKET, MOTOR MOUNT HANGER	W05028	1	
11	BRACKET, MOTOR MOUNT ADJUSTABLE CLUTCH	W05025	1	
12	SPACER, MOTOR MOUNT BUSHING	S07396	2	
13	BUSHING, RUBBER MOTOR MOUNT	P05032	2	
14	PLATE, MOTOR MOUNT WASHER	S05031	1	
15	WASHER, 1/2" SPLIT LOCK	F05011-9	2	
16	NUT, 1/2-13 HEX LOCK	F05010-3	2	
17	GUARD, ENGINE BRUSH	W09498 <sup>3</sup>	1	

<sup>1</sup> Replaces W04388 originally supplied.

<sup>2</sup> A04127 no longer available. Purchase individual component parts P12164 and P05041.

<sup>3</sup> Engine guard added 7/89. Can be retrofitted to older engines. Requires two F05006-13 5/16-18 x 2" Hex Head Bolts.

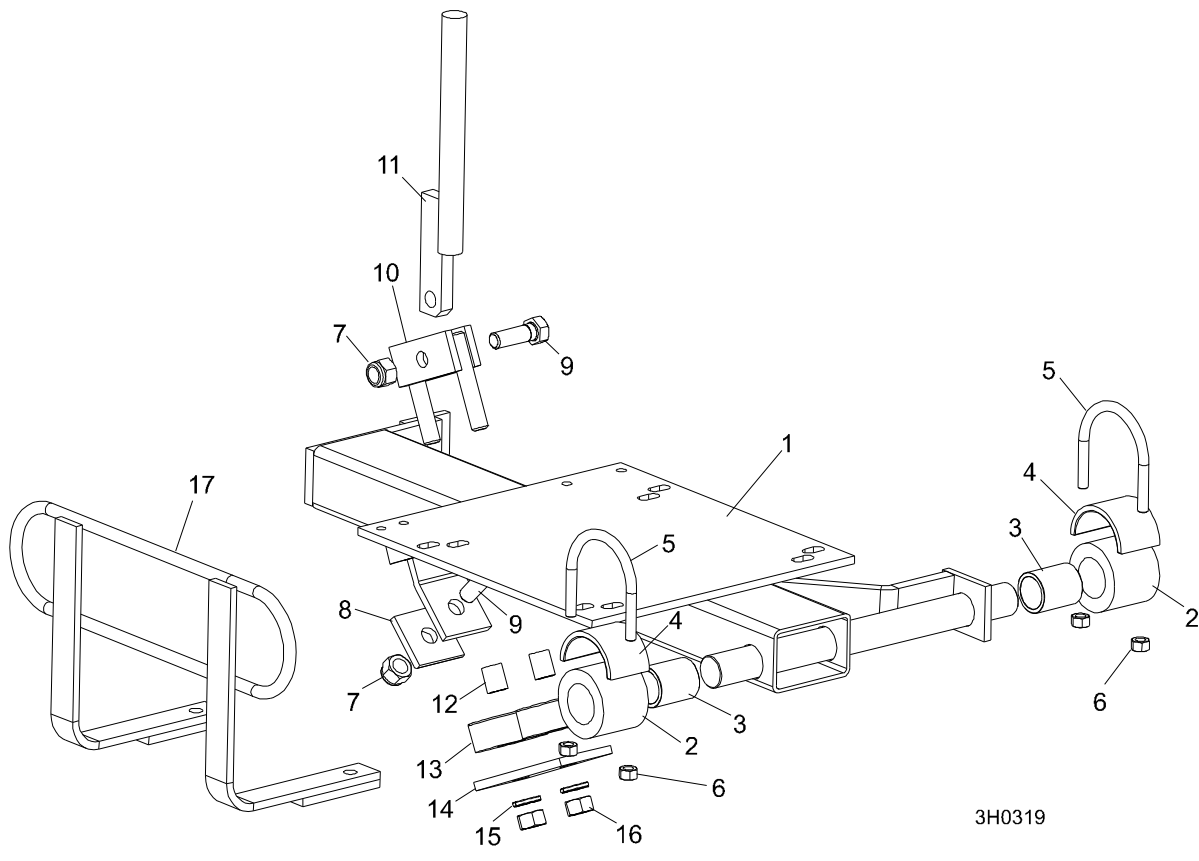


FIG. 4-2

## 4

## Replacement Parts

## Engine Assembly

<b>4.5 Engine Assembly</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>ENGINE ASSEMBLY, 18HP BRIGGS &amp; STRATTON</b>	A09789	1	
1	Engine, 18HP Briggs & Stratton Model I/C 422437 Type 4049 01	P09875 <sup>1</sup>	1	
	Filter, Briggs 18HP Oil	P09906 <sup>1</sup>	1	
2	Filter, Briggs 16/18HP Air	P09547	1	
3	Pre-Cleaner, Briggs 16/18HP Air	P09548	1	
4	Plug, Briggs Spark (Champion #RJ19LM)	P09586	2	
	Filter, In-Line Fuel	P07570	1	
	Spark Arrestor	P09553	1	
	Muffler, Briggs 16/18HP #491-307S	P08714	1	
	Throttle Assembly, 18HP Briggs	A09872	1	
5	Spring, Throttle	P08560	1	
6	Bracket, 18HP Throttle	W09878	1	
7	Rod, .062" Dia. Spring Tempered	R01940-1	.75 Ft.	
8	Tube, 1/4" O.D. Polyethylene	R01869	.46 Ft.	
9	Link, 18HP Throttle	S09539	1	
10	Screw, #10-32 x 1 1/2" Socket Head	F05004-28	1	
11	Washer, #10 Split Lock	F05011-20	2	
12	Nut, #10-32 Hex	F05010-27	1	
13	Hose, 7" Oil Drain	P10082 <sup>2</sup>	1	
14	Cap, Oil Drain 3/8" Pipe	P04332	1	
	Oil, 10W30 Type CD	L04869-1	.38 Gal.	◆
15	Pulley, 2BK-34H Motor	P04853	1	
16	Key, 1/4" x 1/4" x 1 11/16"	S04124 <sup>3</sup>	1	
17	Bushing, 1" Split Taper	P09552	1	
18	<b>BELT, 2BX72 DRIVE</b>	P09555-2 <sup>4</sup>	1	
19	<b>BOLT, 5/16-18 X 2" HEX HEAD FULL THREAD</b>	F05006-13 <sup>5</sup>	2	
20	<b>BOLT, 5/16-18 X 1 1/2" HEX HEAD FULL THREAD</b>	F05006-2	2	
21	<b>WASHER, 5/16" SAE FLAT</b>	F05011-17	8	
22	<b>NUT, 5/16-18 HEX NYLON LOCK</b>	F05010-58	4	
	<b>SOLENOID KIT, 18HP BRIGGS STARTER</b>	A10450 <sup>6</sup>	1	
23	Solenoid, 120-943	016372 <sup>7</sup>	1	◆
24	Bolt, 1/4-20 x 3/4" Hex Head	F05005-1	2	
25	Nut, 1/4-20 Self Locking	F05010-9	2	
	Instruction Sheet, Starter Solenoid	A10450-392	1	

<sup>1</sup> Briggs engine model 422437 Type 4049 01 replaces engine 422447 Type 4059 03 originally supplied. New engine utilizes splash oil system and requires no oil filter. P09906 oil filter required for original engine only.

<sup>2</sup> Flexible drain hose replaces A09531 pipe drain supplied

<sup>3</sup> 1-11/16" key replaces 1 1/4" or 2" key originally supplied.

<sup>4</sup> One double belt P09555-2 replaces two single belts P09555 originally supplied until 7/89.

<sup>5</sup> Engine guard added 7/89. Two F05006-13 5/16-18 x 2" Hex Head Bolts replace two F05006-2 5/16-18 x 1 1/2" Hex Head Bolts. See Section 4.4.

- <sup>6</sup> Starter solenoid added 2/91. Solenoid may be retrofitted to older Briggs 18hp engines to prevent key switch failure.
- <sup>7</sup> Solenoid Kit 016372 replaces Solenoid P10449. Kit includes solenoid and replacement instructions.

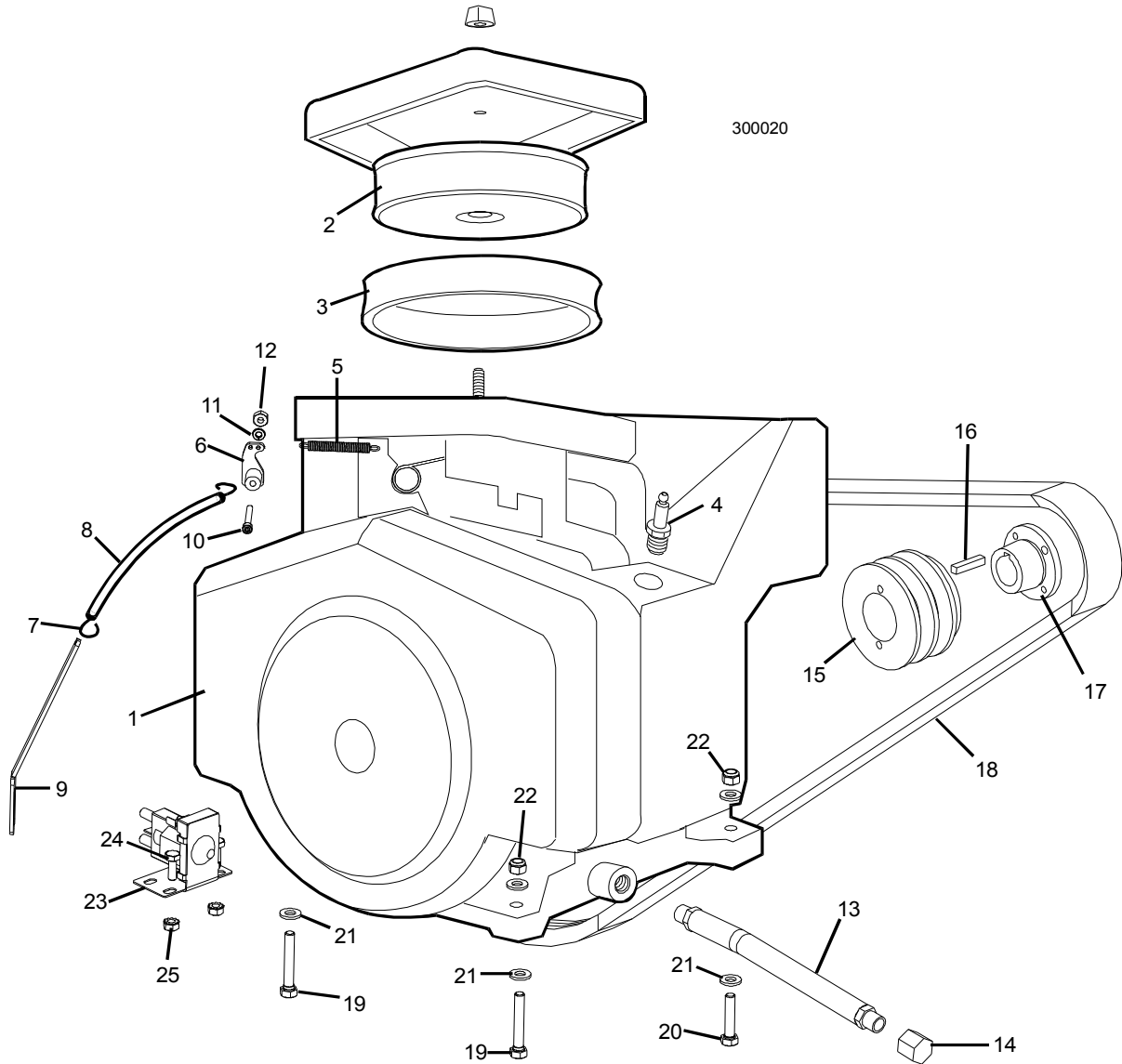


FIG. 4-3

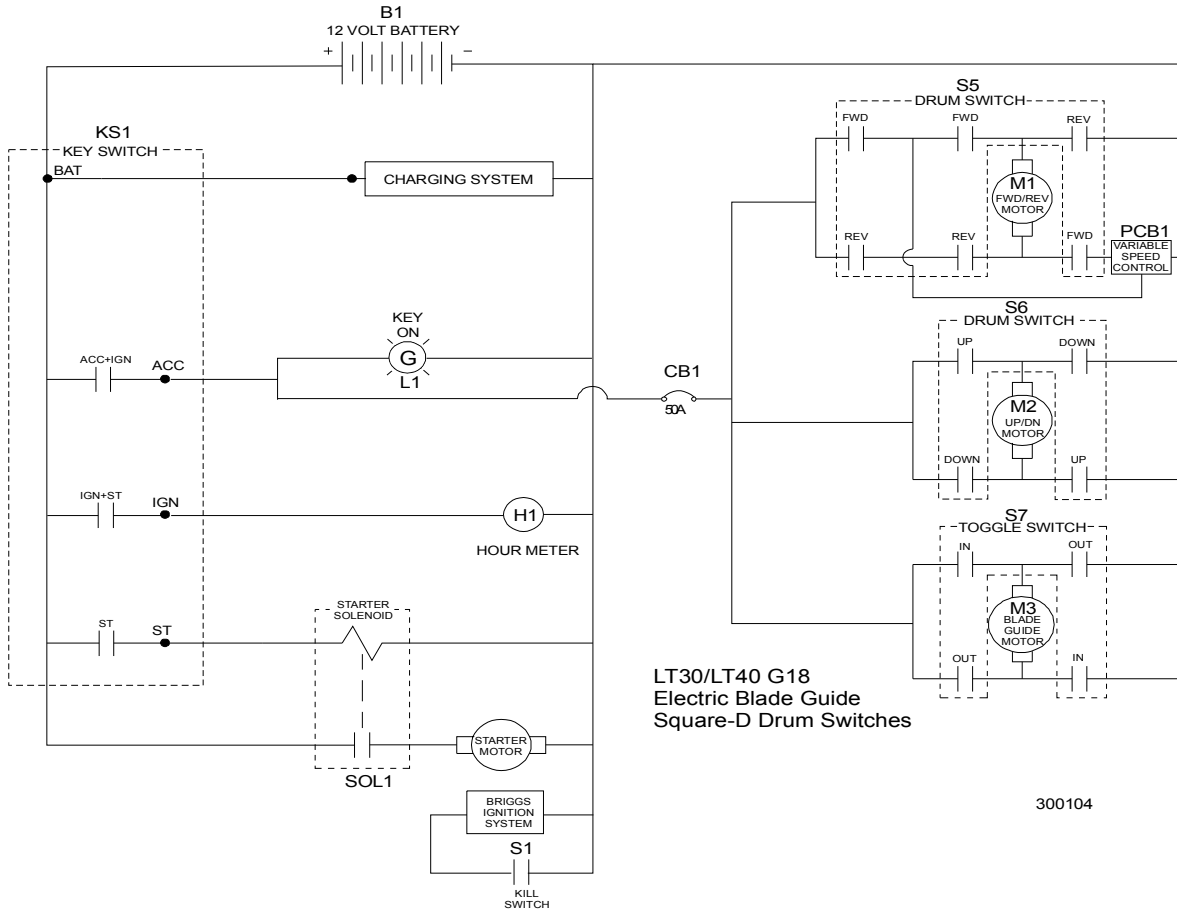


## SECTION 5 ELECTRICAL INFORMATION

### 5.1 Electrical Symbol Diagram, LT30/LT40 Briggs & Stratton G18

LT30  
LT40

Rev. C3  
Rev. C4



LT30/LT40 G18  
Electric Blade Guide  
Square-D Drum Switches

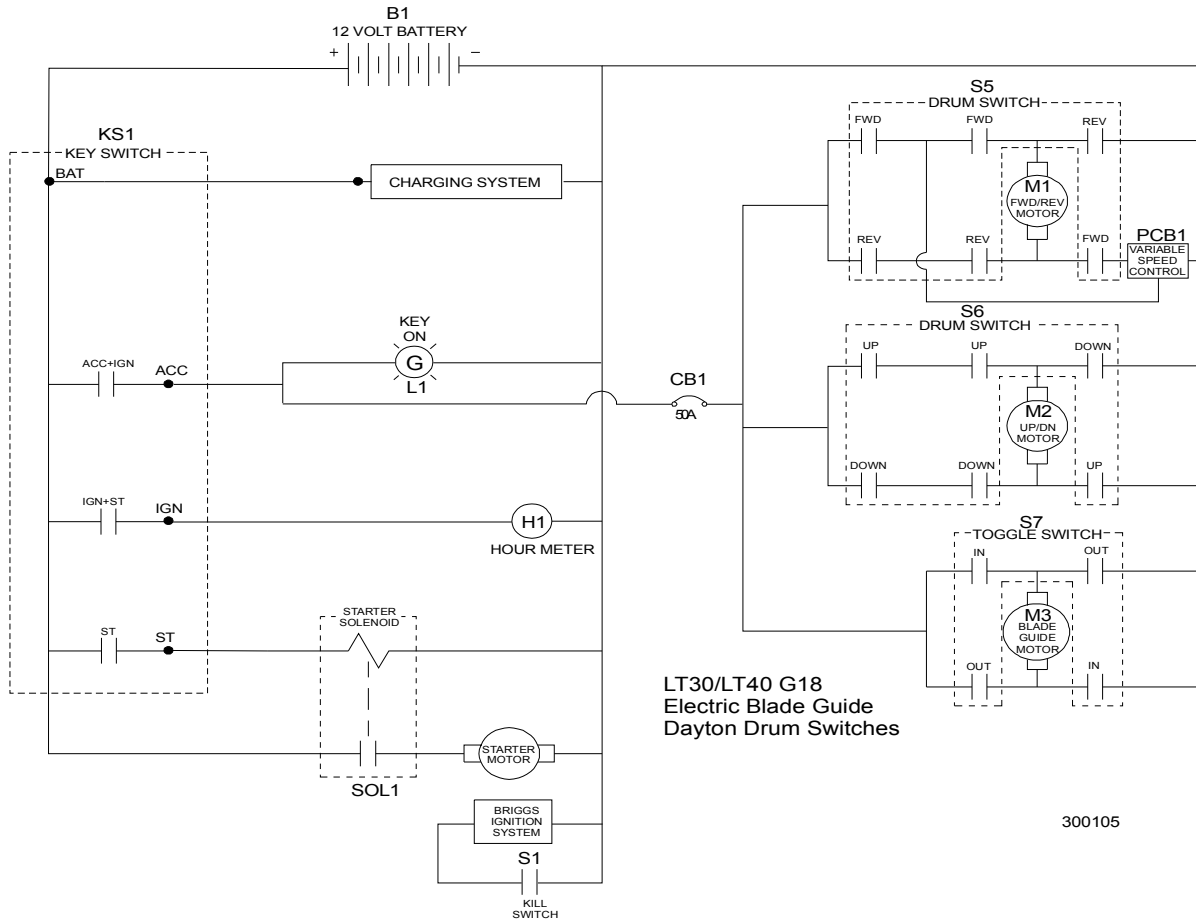
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FIG. 5-1

**5.2 Electrical Symbol Diagram, LT30/LT40 Briggs & Stratton G18**

LT30  
 LT40

Rev. B3 - C2  
 Rev. B4 - C3

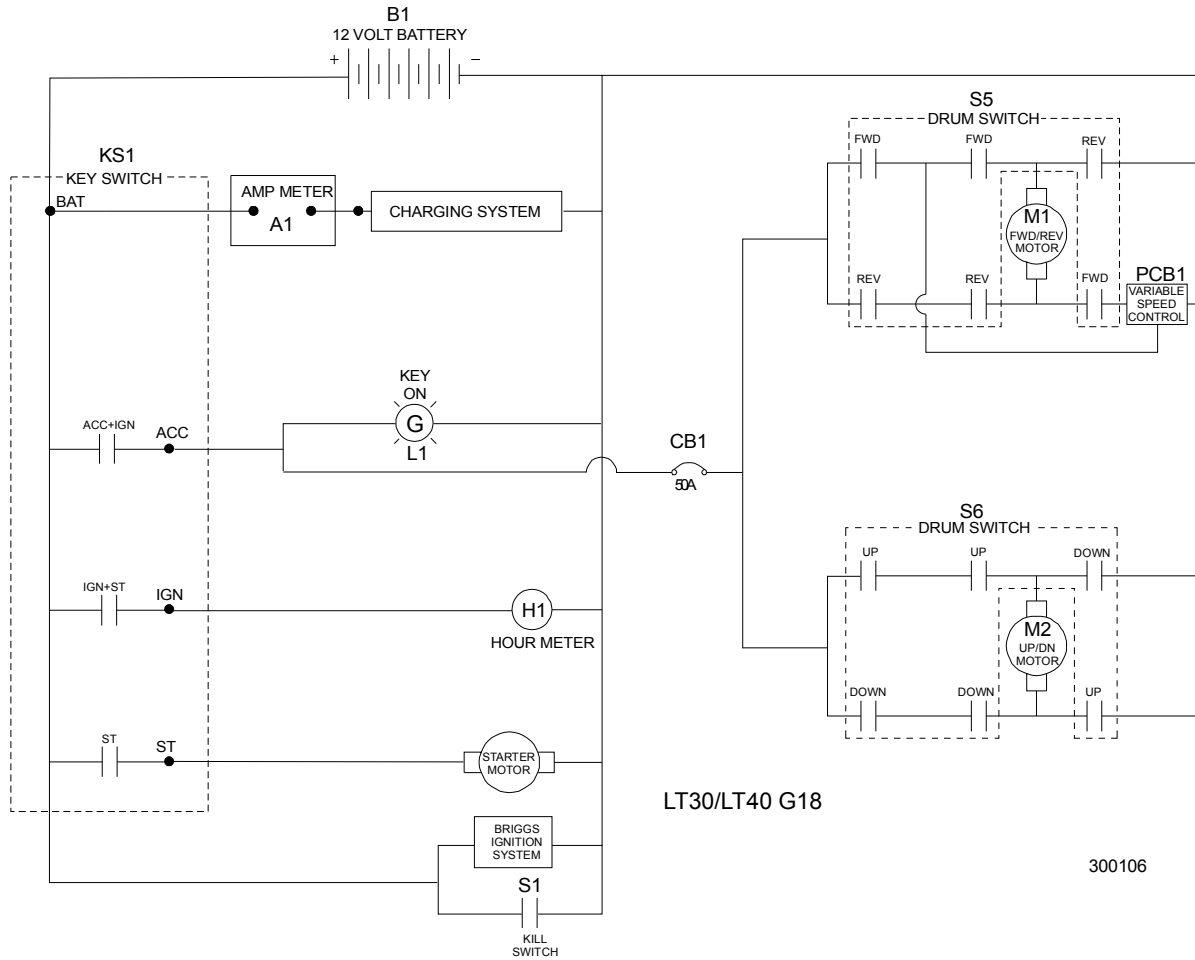


**FIG. 5-2**

5.3 Electrical Symbol Diagram, LT30/LT40 Briggs & Stratton G18

LT30  
LT40

Rev. AG - B2  
Rev. AJ - B3



LT30/LT40 G18

300106

FIG. 5-3

## 5.4 Electrical Components, LT30/LT40 G18

Component	Manufacturer Part No.	Manufacturer	Wood-Mizer Part No.	Description
A1			P04270	Amp Meter
B1	93ET-DRY	Deka	P04325 <sup>1</sup>	Battery, 12 Volt ( <a href="#">See Section 5.6</a> )
	524MFD	Deka	P09725-1	Battery, 12 Volt LT30/40 ( <a href="#">See Section 5.5</a> )
CB1	30056-50	Cole-Hersee	A04706	Circuit Breaker, 50 Amp, 12 Volt Auto Reset
H1	T40 Series	ENM Corp.	P09631	Hour Meter, 12 Volt, Low Power T40 Series
KS1	121801	General	P04350	Key Switch, 4-position (Accessory, Off, Ignition, Start)
L1	2129	General	P20436	Light, Green Indicator, For Key Switch In Acc Or Ign Position
M1	A07974	Wood-Mizer	A07974	Motor, 12 Volt Power Feed
M2	N/A	Leeson <sup>2</sup>	A04367	Motor, 12 Volt Up/Down
M3	P09698-1	Klauber	A10365	Motor, 12 Volt Blade Guide Arm 53:1 Gear
PCB1	A07800-W	Wood-Mizer	A07800-W	Control Assembly, Pre-92 Power Feed (includes items below & S5 Drum Switch)
	A07751	Wood-Mizer	A07751	Circuit Board, Pre-92 Power Feed
	A06963	Wood-Mizer	A06963	Module Assembly, MOSFET Power
	024756	Wood-Mizer	024756	Diode Assembly, Pre-92 Power Feed
	A07793	Wood-Mizer	A07793	Potentiometer, Power Feed
	P06257	Davies Molding	2300CK	Knob, Speed Control
S1	100-S	McGill	P07915 <sup>3</sup>	Engine Kill Switch
S5	2601-AG2-S14	Square D	A07799 <sup>4</sup>	Drum Switch, Power Feed Fwd/Reverse Motor
S6	2601-AG2-S13	Square D	A11758 <sup>5</sup>	Drum Switch, Up/Down Motor
S7	1121-0004	McGill	P10006	Toggle Switch, Blade Guide In/Out Motor
SOL1	120-943	United Tech.	A10450 <sup>6</sup>	Solenoid, Low-Cost Multi-Purpose 12 Volt 3 Terminal

<sup>1</sup> 3ET Battery P04325 used on LT30G18 Rev. AG. LT30G18 Rev. AH+ and all LT40G18 models use maintenance-free 524MFD battery P09725-1.

<sup>2</sup> Replaces Leeson motor #S.I. 2917-A (10/01) and Owosso motor #PV-28147Q originally supplied (12/00).

<sup>3</sup> Part is obsolete and no longer available. Customer should be able to source locally.

<sup>4</sup> Replaces M04237 Dayton drum switch originally supplied until 1/91.

<sup>5</sup> Replaces A04705 Dayton drum switch w/spring originally supplied until 1/91. Replacement spring P04020 still available for old drum switch.

<sup>6</sup> Starter solenoid added 2/91. May be retrofitted to earlier models.

### 5.5 Battery Specifications, LT30/LT40 G18

LT30

Rev. AH - C3

LT40

Rev. AJ - C4

Group No.	Type No.	Performance Level		Approximate Weight	Maximum Overall Dimensions		
		Cranking Performance	Reserve Capacity	Wet	Length	Width	Height
24	524MFD	535CC	90	35.5 lb. (16.1 kg)	10.25 in. (260 mm)	6.75 in. (171 mm)	9.0 in. (229 mm)

TABLE 5-1

### 5.6 Battery Specifications, LT30 G18

LT30

Rev. AG

Group No.	Type No.	Performance Level		Approximate Weight	Maximum Overall Dimensions		
		Cranking Performance	Reserve Capacity	Wet	Length	Width	Height
3ET	93ET-DRY	500CC	120	49.5 lb. (22.45 kg)	19.25 in. (489 mm)	4.25 in. (108 mm)	9.875 in. (251 mm)

TABLE 5-2

5.7 Wiring Diagram, LT30/LT40 Briggs & Stratton G18

LT30  
LT40

Rev. C3  
Rev. C4

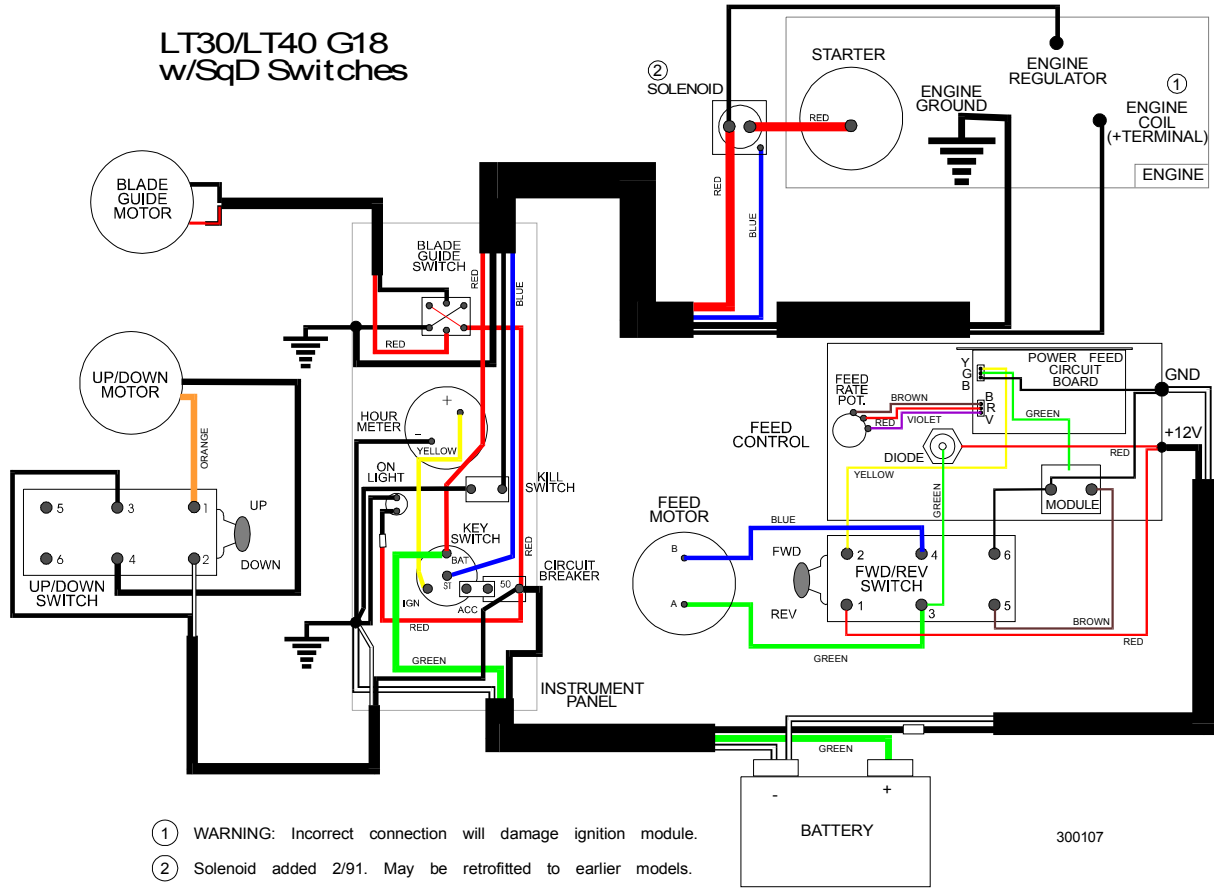
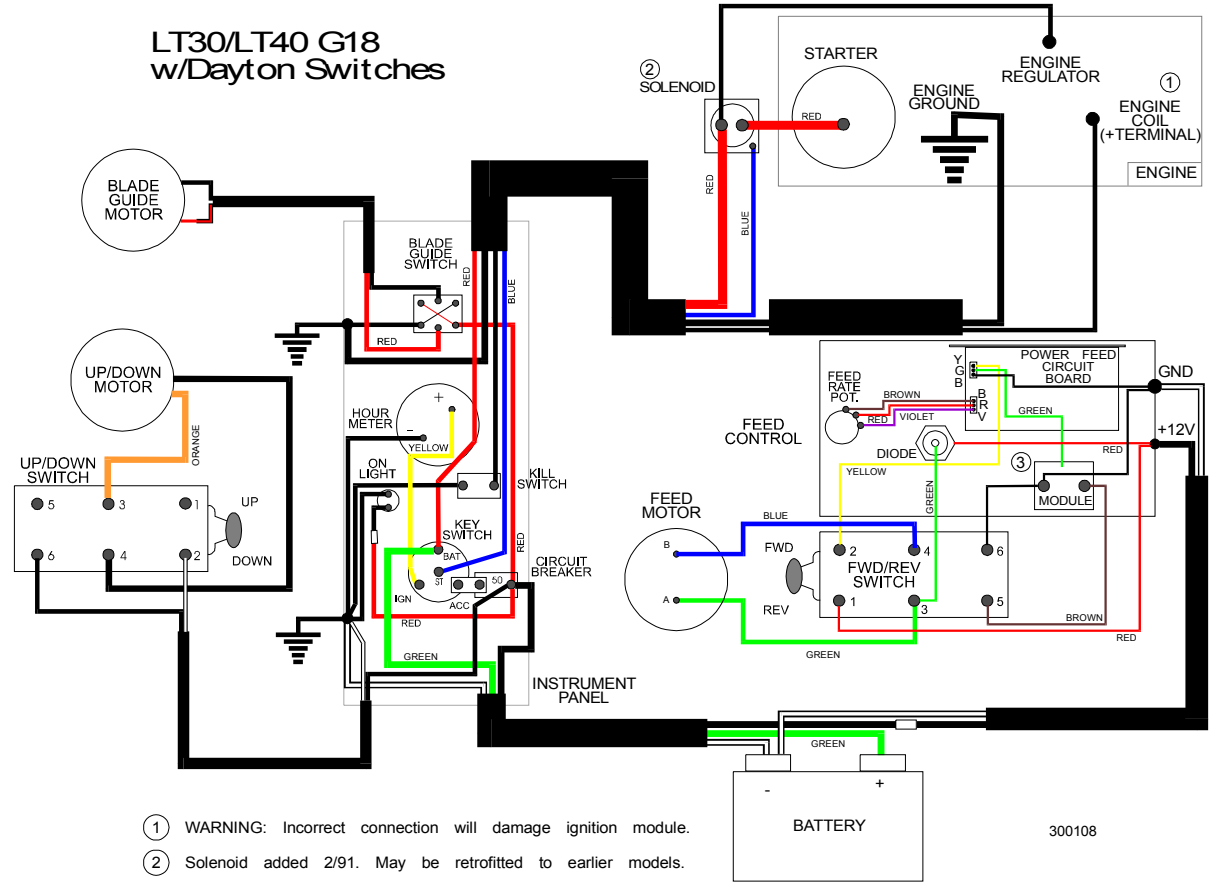


FIG. 5-4

**5.8 Wiring Diagram, LT30/LT40 Briggs & Stratton G18**

LT30 Rev. B3 - C2  
 LT40 Rev. B4 - C3

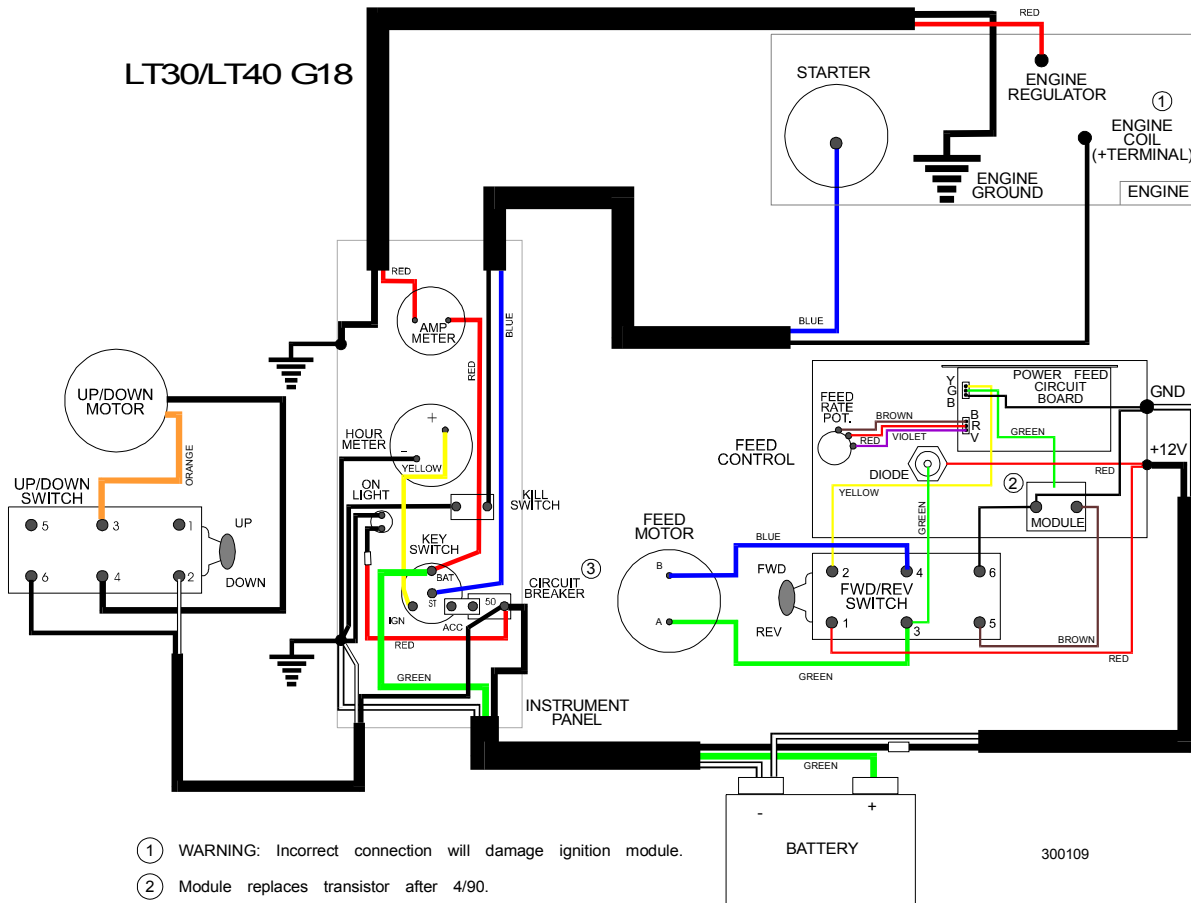


**FIG. 5-5**

### 5.9 Wiring Diagram, LT30/LT40 Briggs & Stratton G18

LT30  
LT40

Rev. AG - B2  
Rev. AJ - B3



- ① WARNING: Incorrect connection will damage ignition module.
- ② Module replaces transistor after 4/90.
- ③ Circuit Breaker moved from battery box to instrument panel on LT30 after rev. AJ. Relocation of breaker on previous revisions is recommended.

300109

FIG. 5-6



# **G18 Engine**

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

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**1992 LT30**  
**1992 LT40**

**rev. C4 - F3**  
**rev. C5 - F4**

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

*October 1994*


*Form #654*

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## SECTION 1 SAFETY & GENERAL INFORMATION

 This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** refers to hazards that can cause death or serious, irreversible personal injury. The word **WARNING** suggests a safety hazard that can cause personal injury. **CAUTION** refers to hazards that can cause damage to the equipment or property only.

Read all safety instructions before operating this equipment and observe all safety warnings! Read the manufacturer's operation manual and observe any additional safety warnings applicable to the specific make and model you have purchased.


### 1.1 Refueling

 **WARNING!** Store gasoline away from sawdust and other flammable materials.


**WARNING!** Do not store gasoline near hot or burning materials.

**WARNING!** Do not smoke near gasoline storage tank or during refueling.


### 1.2 Engine Operation

 **DANGER!** Do not operate engine in enclosed areas. Carbon Monoxide poisoning may occur.

**DANGER!** Do not operate engine without proper and operational spark arrester/muffler.


 **WARNING!** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### 1.3 Battery Handling

 **WARNING!** Batteries can explode when charging or boosting. Always wear eye protection.

**WARNING!** Keep cigarettes, flames or sparks away from battery.

**WARNING!** Charge the battery in a well-ventilated area. Do not attempt to charge a frozen battery.

 **CAUTION!** Place a rag over battery vent holes when handling to avoid electrolyte squirting from holes.

## SECTION 2 OPERATION

### 2.1 Starting The Engine

To start the engine:

Turn the key switch on the control panel to the START position and release.

If the engine needs choking to start, pull the choke wire out until the engine starts. Push the choke wire in after the engine starts.

For more information, see the engine manufacturer's operation manual.

If the fuel tank was recently filled or replaced, squeeze the primer bulb once or twice before trying to start the engine. **NOTE:** If pumping problems are experienced, make sure the out-flow end of the hose line is connected to the carburetor. If pumping problems are still experienced, hold the primer bulb in a vertical position while squeezing. This allows the fuel check valve to operate properly.



**WARNING!** Do not start the engine when the clutch/brake lever is in the engaged (down) position. Always be sure the blade is disengaged and all persons are away from the blade before starting the engine.

**WARNING!** Make sure the carriage fwd/rev switch is in the neutral position before turning the key switch to the ON or ACC position. This will prevent unintended carriage movement.

## SECTION 3 MAINTENANCE



**IMPORTANT!** The Wood-Mizer maintenance schedule takes into account the specific use of engines in the Wood-Mizer sawmill. Therefore, the schedule may require certain procedures be performed at different time intervals than found in the engine manufacturer's manuals. Refer to the [manufacturer's manual](#) if you need more information on how to perform a procedure or on the engine itself.



**This symbol** identifies the interval (hours of operation) which each maintenance procedure should be performed. "AR" signifies maintenance procedures which should be performed as required.

### 3.1 Air Filter & Pre-Cleaner



Service the pre-cleaner every four hours of operation. Service 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. See the engine manual for further instructions.



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



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

### 3.2 Debris Guard (Briggs & Stratton 18HP Only)



Clean the debris guard every 8 hours of operation. See engine manual for further instructions.

### 3.3 Engine Oil



Check the oil level every 8 hours of operation. Add oil as necessary. See the engine manual for oil viscosity and grade recommendations.



**IMPORTANT!** During initial break-in, change the oil after the first 5 hours and every 50 hours thereafter. Continue to check oil level every 8 hours of operation and refill as necessary.



### 3.5 Fuel Filter

Replace the fuel filter every 100 hours of operation.

### 3.6 Battery



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

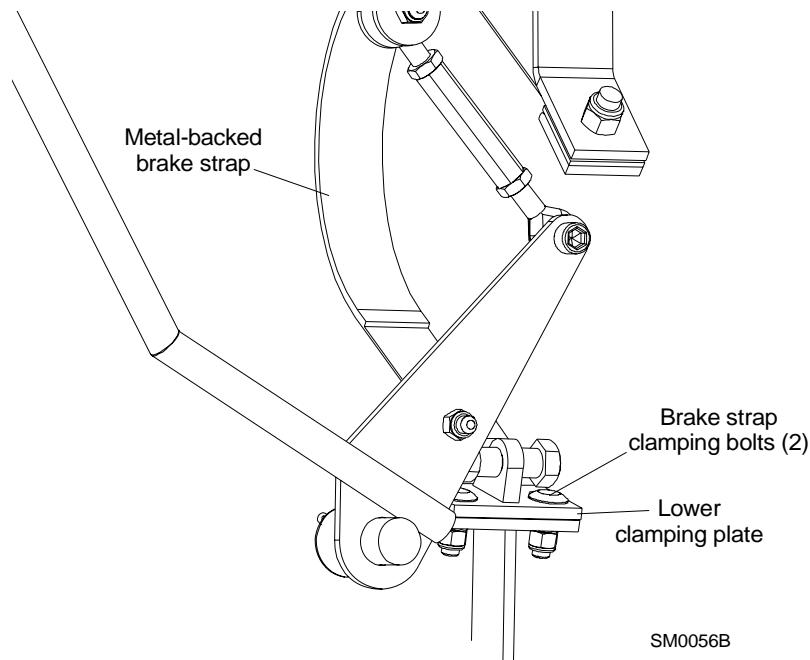


**WARNING!** Batteries contain explosive gases. Always wear eye protection and keep face away when charging or boosting battery. Charge battery in well-ventilated area. Keep battery away from hot or burning materials. Avoid spilling electrolyte when handling.

### 3.7 Drive Belt Adjustment

50

**See Figure 3-1.** Check the drive belt tension after the first 20 hours, and every 50 hours thereafter. The drive belt should have 7/16" (11 mm) deflection with a 14 lb. deflection force. To adjust the drive belt, remove the two belt covers located underneath the engine. Loosen the turnbuckle jam nuts. Turn the turnbuckle counterclockwise (as viewed from the top) to tighten the belts, clockwise to loosen the belts. Retighten the jam nuts. Replace the belt covers.



**FIG. 3-1**

**NOTE:** A longer turnbuckle is available as a retrofit for gas or electric sawmills built before 9/92. The longer turnbuckle will provide more adjustment for the drive belts.

AR

Periodically check all belts for wear. Replace any damaged or worn belts as needed.

AR

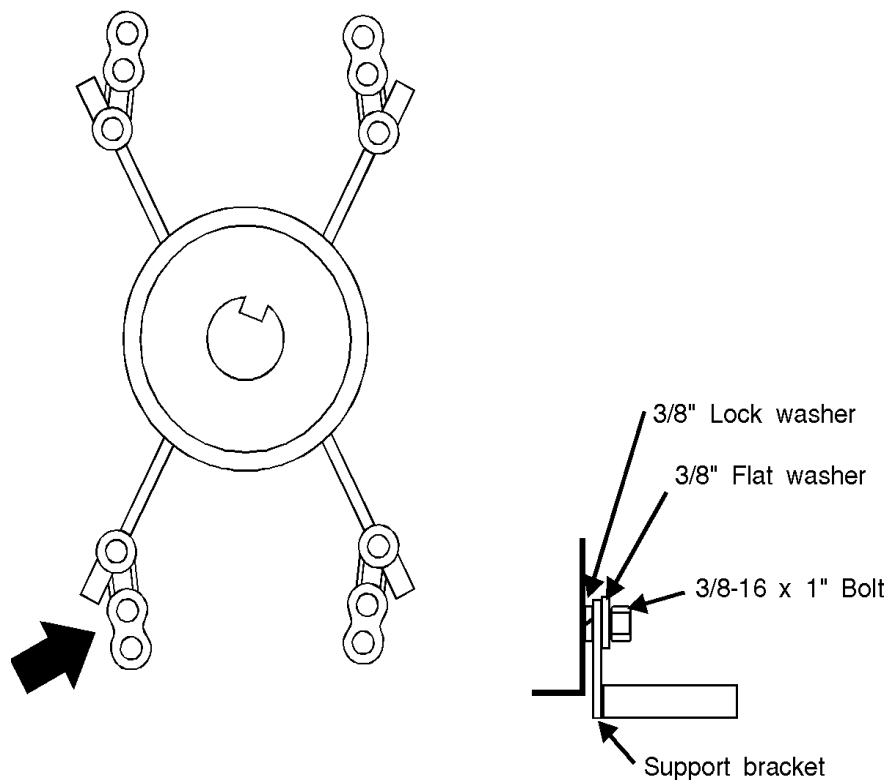
Adjust the drive belt support as needed. The drive belt support is designed to extend belt life. The support bracket should be adjusted to NOT touch the drive belt when the clutch handle is engaged (down position), AND to hold the drive belt away from the engine pulley when the clutch handle is disengaged (up position).



**DANGER!** Do not for any reason adjust the drive belt support with the motor running. Always stop the motor before reaching or looking into the drive belt area.

See Figure 3-2. To adjust:

1. Make sure the motor is not running. Loosen the adjustment bolt.
2. Position the support bracket so it does not touch the drive belt with the clutch handle engaged, and does hold the drive belt away from the motor pulley with the clutch handle disengaged.
3. Retighten the adjustment bolt to 25-27 pound feet (34-37 newton meters).



**FIG. 3-2**

**NOTE:** Drive belt support brackets are supplied on electric sawmills built after 1/92, gas and diesel sawmills after 9/92. The brackets can be retrofitted to older models. Replacing two drive belts with a single common-backed belt also will prevent belt jumping and increase belt life.



### 3.8 Miscellaneous Maintenance

50

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

100

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

100

**Briggs & Stratton 18HP Engine Only:** Clean carbon and lead deposits from the cylinder head every 100 hours of operation. See engine manual for further details.

500

Adjust the valve clearance every 500 hours of operation. See engine manual for further details.

1000

**Onan 18HP Engine Only:** Clean carbon and lead deposits from the cylinder head every 1000 hours of operation. See engine manual for further details.

### 3.9 RPM Adjustments for Onan 18HP Only



**DANGER!** Remove the blade from the sawmill before checking engine RPM.

200

Check the RPM with a tachometer after the first 20 hours of operation and every 200 hours thereafter. High-end RPM should be 3400-3600RPM and low-end RPM should be 1800 ( $\pm 100$ ).

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

1. Start the engine to measure the low-end RPM.

**See Figure 3-3.** Make sure that the throttle linkage is not affecting the engine RPM while the clutch/brake handle is disengaged.

Make sure the cable is not bent or kinked. If necessary, rotate the clamp on bracket B until 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.

2. Refer to the engine manual to adjust the low-end RPM.

# 3

## Maintenance

### RPM Adjustments for Onan 18HP Only

- Engage the clutch handle to throttle the engine and measure the high-end RPM.

**See Figure 3-3.** To adjust the high-end RPM, lower or raise the cable guide in the throttle cable bracket until the cable spring extends  $1/4"$  -  $3/8"$  (6.4 - 9.5 mm) when the engine is at 3400-3600 RPM. Bend the high speed stop on bracket B down until it touches bracket A. This will prevent over-revving the engine when tightening the belt adjustment. To adjust for low-end RPM, adjust the idle screw on bracket B until the RPM is 1800 ( $\pm 100$ ). **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.

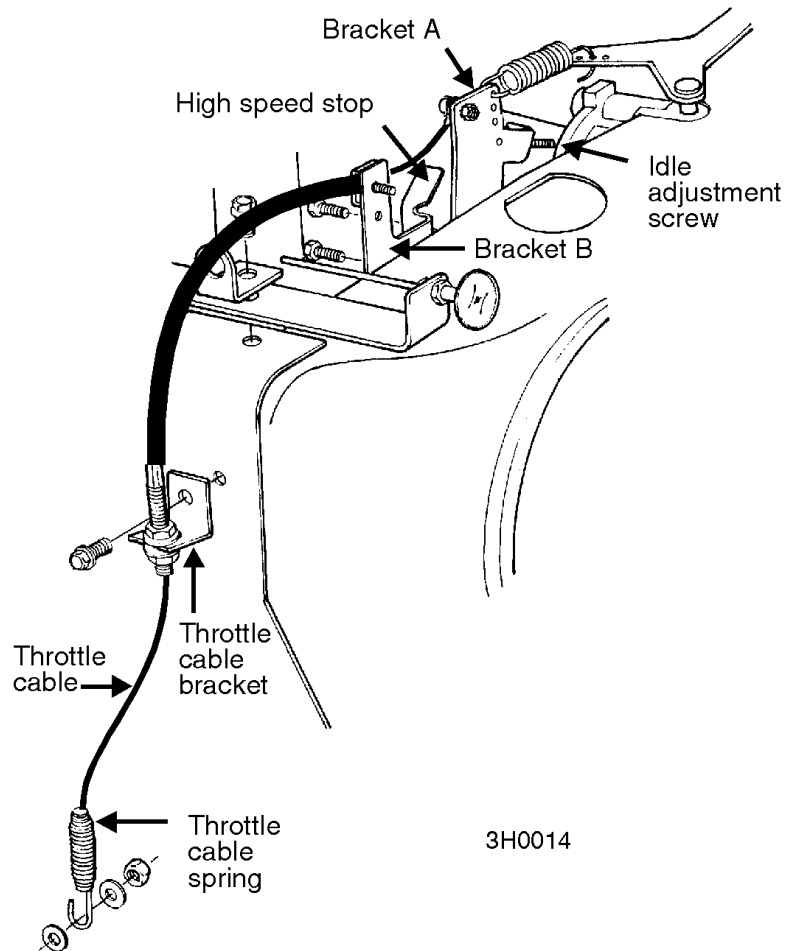


FIG. 3-3

### 3.10 RPM Adjustments for Briggs & Stratton 18HP Only



**DANGER!** Remove the blade from the sawmill before checking engine RPM.

200

Check the RPM with a tachometer after the first 20 hours of operation and every 200 hours thereafter. High-end RPM should be 3400-3600 RPM and low-end RPM should be 1800 ( $\pm 100$ ).

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

1. Start the engine to measure the low-end RPM.

**See Figure 3-4.** Make sure that the throttle linkage is not affecting the engine RPM while the clutch/brake handle is disengaged.

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.

**See Figure 3-5. NOTE:** The engine should start to throttle as soon as you start moving the clutch handle down. If the engine dies instead, restart the engine and adjust the throttle linkage down as far as possible without affecting low-end RPM. With the engine idling and the clutch disengaged, loosen the mounting bolt and pull the throttle link down to a point just above where it affects the low-end RPM. Retighten the mounting bolt.

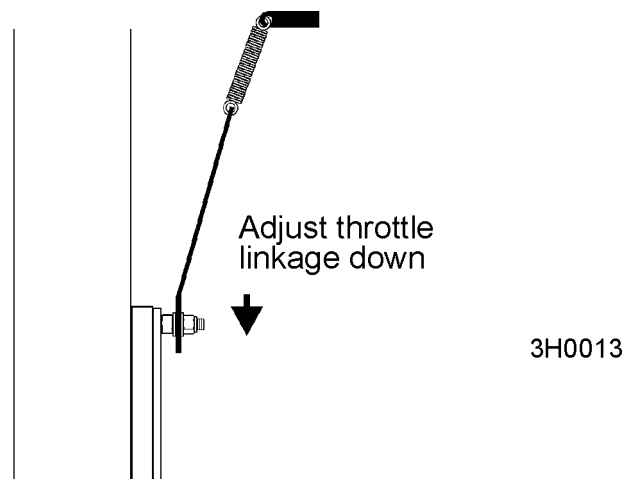


FIG. 3-5

## SECTION 4 REPLACEMENT PARTS

### 4.1 How To Use The Parts List

- Use the table of contents or index to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (◆) are only available in the assembly listed above the part.

See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (◆) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (◆) indicates M06666 is not available except in subassembly K05555.

<b>4.2 Sample Assembly</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>SAMPLE ASSEMBLY, COMPLETE (INCLUDES ALL INDENTED PARTS BELOW)</b>	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	◆
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	◆
4	Sample Part	F07777-77	1	

**To Order Parts:**

- From the continental U.S., call **1-800-525-8100** to order parts. Have your customer number, vehicle identification number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

# 4

## Replacement Parts 5-Gallon Fuel Tank (3/93+)

REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>TANK ASSEMBLY, 5 GALLON RED GASOLINE</b>	A12285	1	
1	Tank, 5 Gallon Red Fuel	P12167	1	◆
2	Pickup, 9" Fuel	P12172	1	
3	Cap, 3/5 Gallon Fuel Tank	P09683	1	
4	Fitting, 1/4" NPT Plastic Female Disconnect	P12175 <sup>1</sup>	1	
5	Fitting, 3/8" NPT Hex Plug	P10367 <sup>2</sup>	1	
	<b>HOSE, FUEL LINE WITH PRIMER BULB</b>	014497 <sup>3</sup>	1	
	Bulb Kit, Fuel Primer Replacement	014496 <sup>3</sup>	1	
6	Bulb, Fuel Primer	014481	1	◆
7	Clamp, 7/32 - 1/2 Hose	P649 <sup>3</sup>	2	
	Instruction Sheet, Fuel Primer Bulb Replacement	014496-590	1	
8	Hose, 1/4" ID Fuel	P642 <sup>3</sup>	6.5 Ft	
9	Clamp, 7/32 - 1/2 Hose	P649 <sup>3</sup>	2	
10	<b>FITTING, 1/4" NPT PLASTIC MALE DISCONNECT</b>	P12176 <sup>1</sup>	1	

<sup>1</sup> Replacement requires qty. 1 hose clamp (P649).

<sup>2</sup> Plug fitting P10367 added 11/03. Hole added to fuel tank to accommodate return line for fuel injected engines.

<sup>3</sup> Fuel Line Assembly w/Primer Bulb replaces P10083 originally supplied. UV-resistant primer bulb kit 014496 available separately. Fuel Line P642 replaces R01890-1 originally supplied. Hose Clamp P649 replaces plastic clamp P12374 previously supplied.

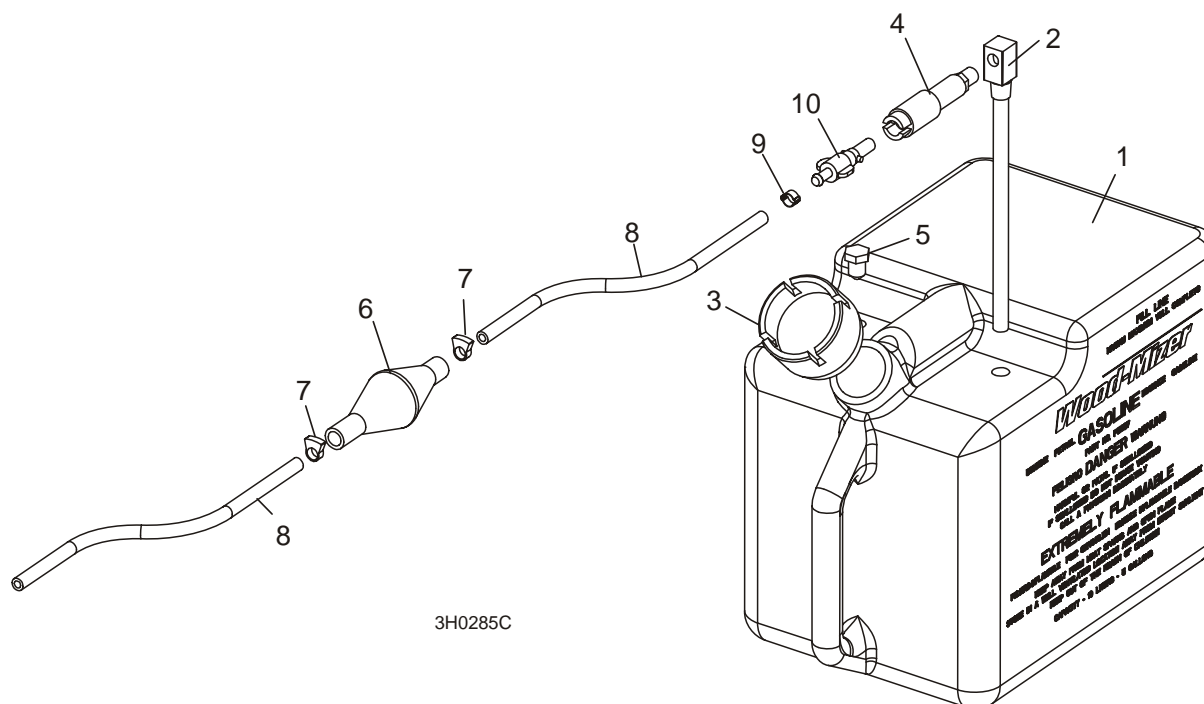


FIG. 4-1

<b>4.4 3-Gallon Fuel Tank (5/91 - 2/93)</b>				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>TANK ASSEMBLY, 3-GALLON RED GASOLINE</b>	A09694 <sup>1</sup>	1	◆
1	Tank, 3-Gallon Red Fuel	P09689	1	◆
2	Cap, 3 or 5-Gallon Fuel Tank	P09683	1	
3	Fitting, 1/4" NPT 90° Elbow	P09696	1	
4	Fitting, Male Disconnect	P07830 <sup>2</sup>	1	◆
	<b>HOSE, FUEL LINE WITH PRIMER BULB</b>	014497 <sup>3</sup>	1	
	Bulb Kit, Fuel Primer Replacement	014496 <sup>3</sup>	1	
5	Bulb, Fuel Primer	014481	1	◆
6	Clamp, 7/32 - 1/2 Hose	P649 <sup>3</sup>	2	
	Instruction Sheet, Fuel Primer Bulb Replacement	014496-590	1	
7	Hose, 1/4" ID Fuel	P642 <sup>3</sup>	6.5 Ft	
	Clamp, 7/32 - 1/2 Hose	P649 <sup>3</sup>	2	
8	<b>FITTING, 1/4" NPT FEMALE DISCONNECT</b>	P07831 <sup>2</sup>	1	◆
9	<b>O-RING KIT, METAL DISCONNECT FITTINGS</b>	P07832 <sup>4</sup>	1	

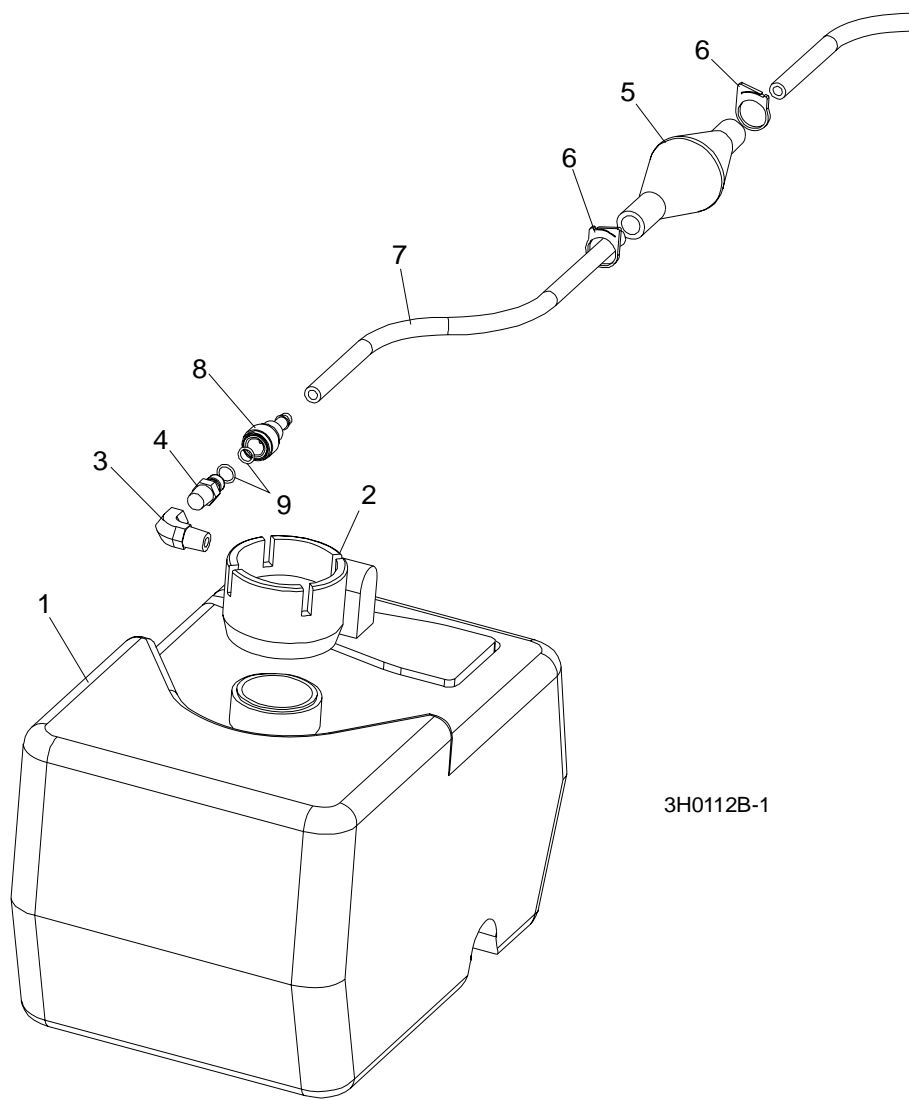
<sup>1</sup> 3-Gallon fuel tank A09694 replaced by A12285 5-Gallon tank. Requires two P11258 24" rubber straps and one P12176 Male Disconnect Fitting. [See Section 4.3](#)

<sup>2</sup> Metal Disconnect fittings P07830 and P07831 may be replaced with plastic fittings P12175 & P12176. [See Section 4.3](#) Replacement of fittings also requires qty. 1 hose clamp (P649).

<sup>3</sup> Fuel Line Assembly w/Primer Bulb replaces P10083 originally supplied. UV-resistant primer bulb kit 014496 available separately. Fuel Line P642 replaces R01890-1 originally supplied. Hose Clamp P649 replaces plastic clamp P12374 or 015584 previously supplied.

<sup>4</sup> Includes O-rings for male and female metal fittings. Fittings may be replaced with plastic fittings P12175 & P12176. [See Section 4.3](#).

**4** Replacement Parts  
3-Gallon Fuel Tank (5/91 - 2/93)



3H0112B-1

**FIG. 4-2**

<b>4.5 Engine Assembly</b>				
<i>LT30</i>		<i>Rev. F3+</i>		
<i>LT40</i>		<i>Rev. F4+</i>		
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>ENGINE ASSEMBLY, 18HP ONAN</b>	A12936 <sup>1</sup>	1	
1	Engine, Onan P218G-I ( <a href="#">See Form #202</a> for complete list of parts)	P12924	1	◆
2	Filter, Onan Air	P07566	1	
3	Pre-Cleaner, Onan Air	P07961	1	
4	Plug, Onan Spark (Champion #RS17YX)	P06819	2	
5	Filter, Onan Oil	P09881	1	
6	Pump, Onan Fuel	P07978	1	
7	Filter, In-Line Fuel	P07570	1	
8	Starter Motor, Onan	P06830	1	
	Muffler Kit, Onan w/Exhaust Tube	K12747	1	
	Muffler Kit, Onan	K12748	1	
9	Muffler, Onan	P12505	1	◆
10	Spark Arrester, Onan	P12506	1	
11	Tube, Exhaust	P12507	2	
12	Regulator, 18HP Onan	P07932 <sup>2</sup>	1	
13	Oil Fill, Extended W/Dipstick Replacement	P12371	1	
14	Guard, Onan Engine	P11936	1	
15	Screw, #10-24 x 1" Phillips Head Type 23	F05015-27	4	
16	Coil, Onan Ignition	055005 <sup>3</sup>	1	
17	Spring, Onan Governor	P04497	1	
18	Cable Assembly, Onan Throttle	P12313	1	
	Spring, Throttle	016033	1	
19	Cable Assembly, Onan Choke	P12916	1	
20	Bracket, Choke Cable Mount	S12937	1	◆
21	Bolt, 1/4-20 x 3/4" Hex Head Full Thread	F05005-1	2	
22	Washer, 1/4" Split Lock	F05011-14	2	
23	Bracket, Throttle Cable Mount	S12312	1	
24	Screw, 1/4-20 x 1/2" Slotted Hex Head	F05015-1	1	
25	Bolt, 1/4" x 3/8" Shoulder (#10-24 Thread)	F05004-57	1	◆
26	Washer, 1/4" SAE Flat	F05011-11	1	
27	Nut, #10-24 Self-Locking	F05010-14	1	
28	Linkage Assembly, 24HP P224 Onan Throttle	P12329	1	
	Nut, 1/4-20 Self-Locking (for shipping purposes only)	F05010-9	2	
	Nut, #10-32 Self-Locking (for shipping purposes only)	F05010-27	2	
29	Linkage Assembly, Onan Front Pull Choke 541-0190	P12952	1	
30	Hose, 7" Oil Drain	P10082	1	
31	Cap, Oil Drain 3/8" Pipe	P04332	1	
	Oil, 10W30 Type CD	L04869-1	.5 Gal.	◆



## 4

## Replacement Parts

## Engine Assembly

32	Pulley, 2BK-34H	P04853	1	
33	Key, 1/4" x 1/4" x 1 11/16"	S04124 <sup>4</sup>	1	
34	Bushing, 1 1/8" Split Taper	P04306	1	
35	Bolt, 3/8-16 x 1" Hex Head	F05007-7	1	
36	Nut, 3/8-16 Hex Nylon Lock	F05010-10	1	
37	Nut, 3/8-16 Self-Locking	F05010-19	1	
38	Washer, 3/8" Flat	F05011-3	4	
	<b>BRACKET ASSEMBLY, DRIVE BELT SUPPORT SINGLE-PRONG</b>	A12243	1	
39	Bracket, Drive Belt Support Single-Prong	W12237	1	◆
40	Washer, 3/8" Split Lock	F05011-4	1	
	Instruction Sheet, Drive Belt Support Single-Prong	A12243-420	1	◆
41	<b>BELT, 2BXF71 DRIVE</b>	036163 <sup>5</sup>	1	
42	<b>PLATE, MOTOR MOUNT</b>	W11543	1	
	<b>BUSHING ASSEMBLY, MOTOR MOUNT PIVOT</b>	A04127 <sup>6</sup>	2	◆
43	Bushing, Rubber Motor Mount Pivot	P12164	1	
44	Spacer, Motor Mount Pivot	P05041	1	
45	<b>PLATE, MOTOR MOUNT PIVOT BUSHING</b>	S04403	2	
46	<b>BOLT, 5/16-18 X 2 1/2" 'U'</b>	P05039	2	
47	<b>NUT, 5/16-18 HEX LOCK</b>	F05010-6	2	
48	<b>BOLT, 3/8-16 X 1 1/2" HEX HEAD GRADE 2</b>	F05007-3	4	
49	<b>WASHER, 3/8" SAE FLAT</b>	F05011-3	8	
50	<b>NUT, 3/8-16 HEX NYLON LOCK</b>	F05010-10	4	

<sup>1</sup> 18HP Onan engine replaces 18HP Briggs & Stratton engine LT30 rev. F3+, LT40 rev. F4+. Use K12945 to upgrade any LT30/40 mill with the 18HP Onan engine.

<sup>2</sup> Replaced P12963 1/97 (Duplicate Parts).

<sup>3</sup> Coil kit P06827 no longer available from vendor. If replacing original coil, order mount parts: Screw 055000, Nut 055001, Screw 055002, Clamp 055003 & Bracket 055004 in addition to Coil 055005. If coil is mounted on top of manifold, order coil 055005 only.

<sup>4</sup> 1-11/16" key replaces 1 1/4" or 2" key originally supplied.

<sup>5</sup> 036163 Kevlar 2BXF71 belt replaces P12949 2BX71 belt supplied prior to 9/03. Kevlar belt reduces stretch and provides greater range of adjustment.

<sup>6</sup> A04127 no longer available. Purchase individual component parts P12164 and P05041.

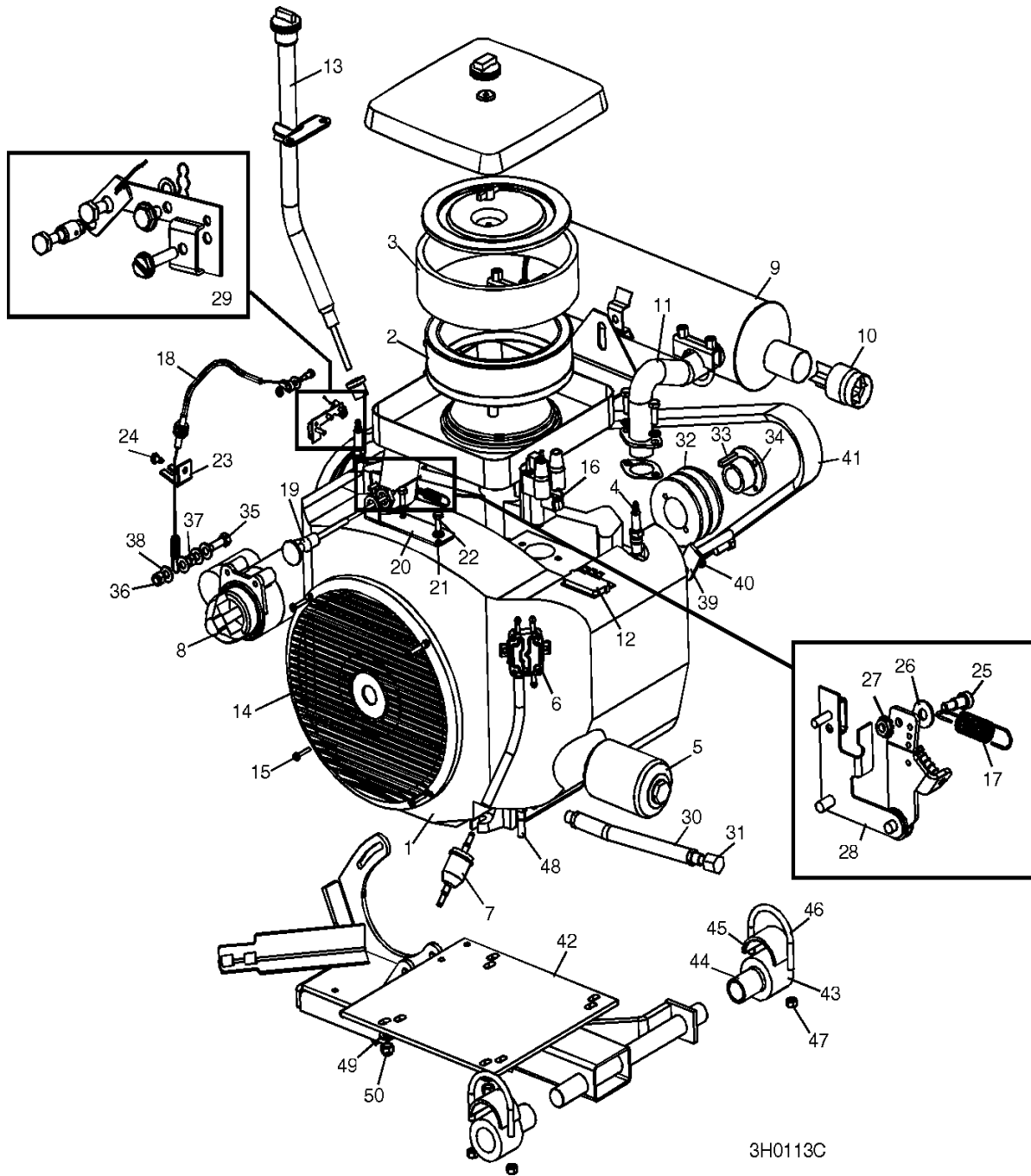


FIG. 4-3

<b>4.6 Engine Assembly</b>				
<i>LT30</i>		<i>Rev. C4 - F2</i>		
<i>LT40</i>		<i>Rev. C5 - F3</i>		
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>ENGINE ASSEMBLY, 18HP BRIGGS &amp; STRATTON</b>	A09789	1	
	Filter, Briggs 18HP Oil	P09906 <sup>1</sup>	1	◆
1	Engine, 18HP Briggs & Stratton Model I/C 422437 Type 4049 01	P09875	1	
2	Filter, Briggs 16/18HP Air	P09547	1	
3	Pre-Cleaner, Briggs 16/18HP Air	P09548	1	
4	Plug, Briggs Spark (Champion #RJ19LM)	P09586	2	
	Filter, In-Line Fuel	P07570	1	
	Spark Arrestor	P09553	1	
	Muffler, Briggs 16/18HP #491-307S	P08714	1	
	Throttle Assembly, 18HP Briggs	A09872	1	
5	Spring, Throttle	P08560	1	
6	Bracket, 18HP Throttle	W09878	1	
7	Rod, .062" Dia. Spring Tempered	R01940-1	.75 Ft.	
8	Tube, 1/4" O.D. Polyethylene	R01869	.46 Ft.	
9	Link, 18HP Throttle	S09539	1	
10	Screw, #10-32 x 1 1/2" Socket Head	F05004-28	1	
11	Washer, #10 Split Lock	F05011-20	2	
12	Nut, #10-32 Hex	F05010-27	1	
13	Hose, 7" Oil Drain	P10082	1	
14	Cap, Oil Drain 3/8" Pipe	P04332	1	
	Oil, 10W30 Type CD	L04869-1	.38 Gal.	◆
15	Pulley, 2BK-34H Motor	P04853	1	
16	Key, 1/4" x 1/4" x 1 11/16"	S04124 <sup>2</sup>	1	
17	Bushing, 1" Split Taper	P09552	1	
18	<b>BELT, 2BX72 DRIVE</b>	P09555-2 <sup>3</sup>	1	
19	<b>PLATE, MOTOR MOUNT, LT30</b>	W11543	1	
	<b>BUSHING ASSEMBLY, MOTOR MOUNT PIVOT</b>	A04127 <sup>4</sup>	2	◆
20	Bushing, Rubber Motor Mount Pivot	P12164	1	
21	Spacer, Motor Mount Pivot	P05041	1	
22	<b>PLATE, MOTOR MOUNT PIVOT BUSHING</b>	S04403	2	
23	<b>BOLT, 5/16-18 X 2 1/2" 'U'</b>	P05039	2	
24	<b>NUT, 5/16-18 HEX LOCK</b>	F05010-6	2	
25	<b>BOLT, 5/16-18 X 2" HEX HEAD FULL THREAD</b>	F05006-13	2	
26	<b>BOLT, 5/16-18 X 1 1/2" HEX HEAD FULL THREAD</b>	F05006-2	2	
27	<b>WASHER, 5/16" SAE FLAT</b>	F05011-17	10	
28	<b>NUT, 5/16-18 HEX NYLON LOCK</b>	F05010-58	4	
29	<b>SOLENOID KIT, 18HP BRIGGS STARTER</b>	A10450	1	
	Solenoid, 120-943	016372 <sup>5</sup>	1	◆

# 4

## Replacement Parts

### Engine Assembly

30	Bolt, 1/4-20 x 3/4" Hex Head	F05005-1	2	
31	Nut, 1/4-20 Self Locking	F05010-9	2	
	Instruction Sheet, Starter Solenoid	A10450-392	1	
	<b>BRACKET ASSEMBLY, DRIVE BELT SUPPORT SINGLE-PRONG</b>	A12243 <sup>6</sup>	1	
32	Bracket, Drive Belt Support Single-Prong	W12237	1	◆
33	Washer, 3/8" Sae Flat	F05011-3	1	
34	Washer, 3/8" Split Lock	F05011-4	1	
	Instruction Sheet, Drive Belt Support	A12243-420	1	
35	<b>GUARD, ENGINE</b>	W09498	1	
36	<b>WASHER, 5/16" SAE FLAT</b>	F05011-17	2	
37	<b>NUT, 5/16-18 HEX LOCK</b>	F05010-6	1	

<sup>1</sup> Required by 18HP Briggs engine model 422447 Type 4059 03 which was used until LT30 Rev. D2, LT40 Rev. D3. Current 18HP Briggs engine does not use an oil filter.

<sup>2</sup> 1-11/16" key replaces 1 1/4" or 2" key originally supplied.

<sup>3</sup> One double belt P09555-2 replaces two single belts P09555 (LT30 Rev. D9, LT40 Rev. E1).

<sup>4</sup> A04127 no longer available. Purchase individual component parts P12164 and P05041.

<sup>5</sup> Solenoid Kit 016372 replaces Solenoid P10449. Kit includes solenoid and replacement instructions.

<sup>6</sup> Added to engine LT30 Rev. D1, LT40 Rev. D2.

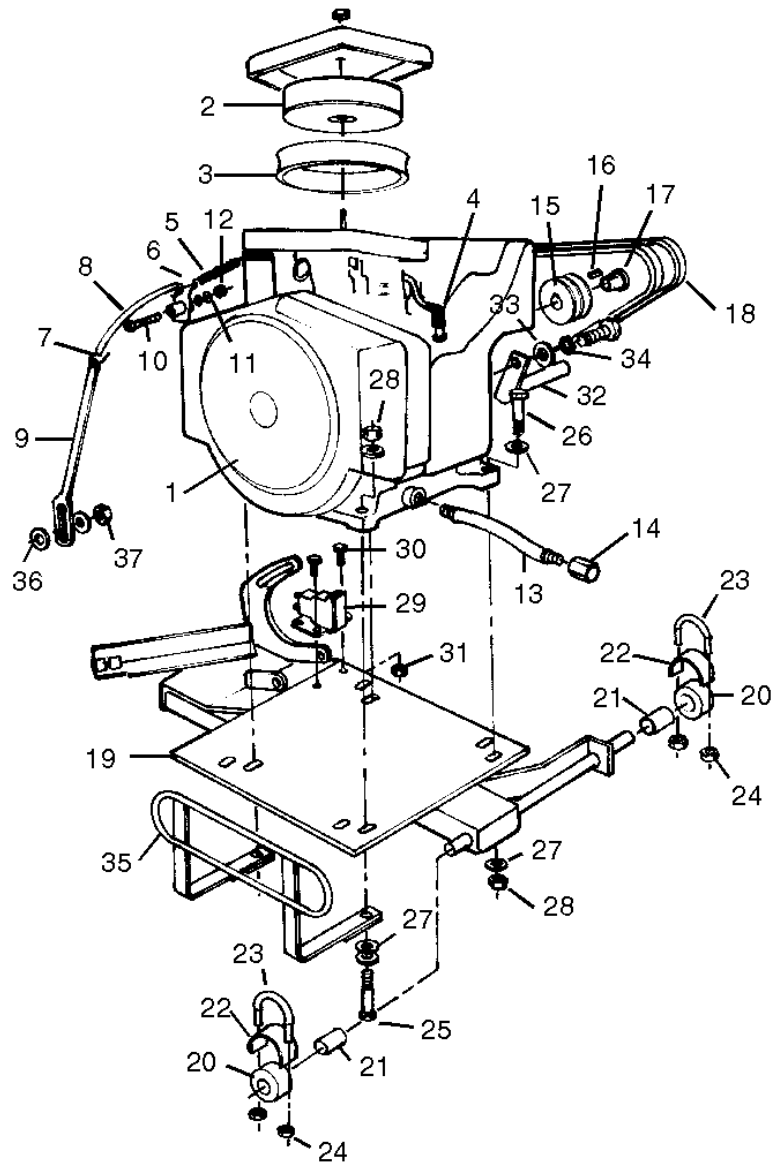


FIG. 4-4

# Form #202

## Onan Engine Service Parts (● indicates part is applicable to specified model)

Description	WM Part No.	Onan Part No.	18HP P218G	20HP B48G	20HP P220G	24HP T260G	24HP P224G
Cap, Crankcase Breather	P06828	123-0954	●	N/A	●	●	●
Carburetor, Onan	P06825	146-0662	146-659	146-0495 (Spec B-C) 146-0660 (Spec D+)	146-0660	●	●
Carburetor Kit, Onan Repair	P06826	146-0500	● (Spec A-F) 146-0657 (Spec G+)	146-0292 (Spec B-C) 146-0356 (Spec D+)	● (Spec A-F)	●	● (Spec A-F) 146-0657 (Spec G+)
Cleaner, Onan 4C Carburetor	014385	326-5278	●	●	●	●	●
Clip, Onan Linkage #004	P09580	518-0004	●	●	●	●	●
Clip, Onan Linkage #406	P09581	518-0406	●	●	●	●	●
Coil, Onan Ignition	P10358	166-0772	N/A	●	N/A	● (Spec A-E)	N/A
Coil, Onan Ignition (Electronic)	055005 <sup>a</sup>	166-0820	●	N/A	●	● (Spec F+)	●
Condenser, Onan Elec. Ignition	P06820	312-0256	●	N/A	●	312-0255 (Spec F+)	●
Condenser, Kit w/Points	K12503	160-1183/312-0246	N/A	●	N/A	● (Spec A-E)	N/A
Filter, Onan Air	P07566	140-2628-01	●	●	●	●	●
Filter, Onan Air Pre-Cleaning	P07961	140-1496-01	●	●	●	●	●
Filter, Onan Inline Fuel	P07570	149-2206-01	●	●	●	●	●
Filter, Onan Oil	P09881	122-0469	●	●	●	●	●
Gasket Kit, Complete Engine	P06815	168-0191	168-0187	168-0187	168-0187	●	●
Gasket Kit, B48/P218/P220 Decarbon	014629	168-0189	●	●	●	N/A	N/A
Gasket Kit, T260/P224 Decarbon	P06822	168-0190	N/A	N/A	N/A	●	●
Gasket Kit, T260/P224 Valve Adjust	014604	110-3575/154-2219/ 154-2747 (2 ea)	N/A	N/A	N/A	●	●
Jet, P218 High Altitude Carburetor	014630	146-0652	●	N/A	N/A	N/A	N/A
Jet P224 High Altitude Carburetor	014631	146-0695	N/A	N/A	N/A	N/A	●
Jet, Onan Carburetor Idle	P09624	146-0426	●	146-0337	●	●	● (Spec A-G)
Plug, RS17YC Spark	P06819	167-0272	●	●	●	●	●
Pump, Onan Fuel	P07978	149-1982	●	●	●	●	149-2187-02
Regulator, 20 Amp	P07932	191-2106	●	●	●	N/A	N/A
Regulator, 35 Amp	P09679	191-1847	N/A	N/A	N/A	●	N/A
Spring, Onan Governor	P04497	150-1214	●	●	●	N/A	●
Spring, Onan Governor (T260)	014610	150-1831	N/A	N/A	N/A	●	N/A

Spring, Onan Governor Rod	<b>014311</b>	N/A	N/A	N/A	N/A	N/A	●
Spring, Onan Governor Surge	<b>014541</b>	<b>150-1755</b>	N/A	N/A	N/A	150-2550	●
Starter, Onan Engine	<b>P06830</b>	<b>191-1949-04</b>	●	191-1567	●	191-1949-01	●

<sup>a</sup> Coil kit P06827 (541-0523) no longer available from vendor. If replacing original coil, order mount parts: Screw 055000, Nut 055001, Screw 055002, Clamp 055003 & Bracket 055004 in addition to Coil 055005. If coil is mounted on top of manifold, order coil 055005 only.

## SECTION 5 ELECTRICAL INFORMATION

### 5.1 Electrical Symbol Diagram, LT30/LT40 Onan G18

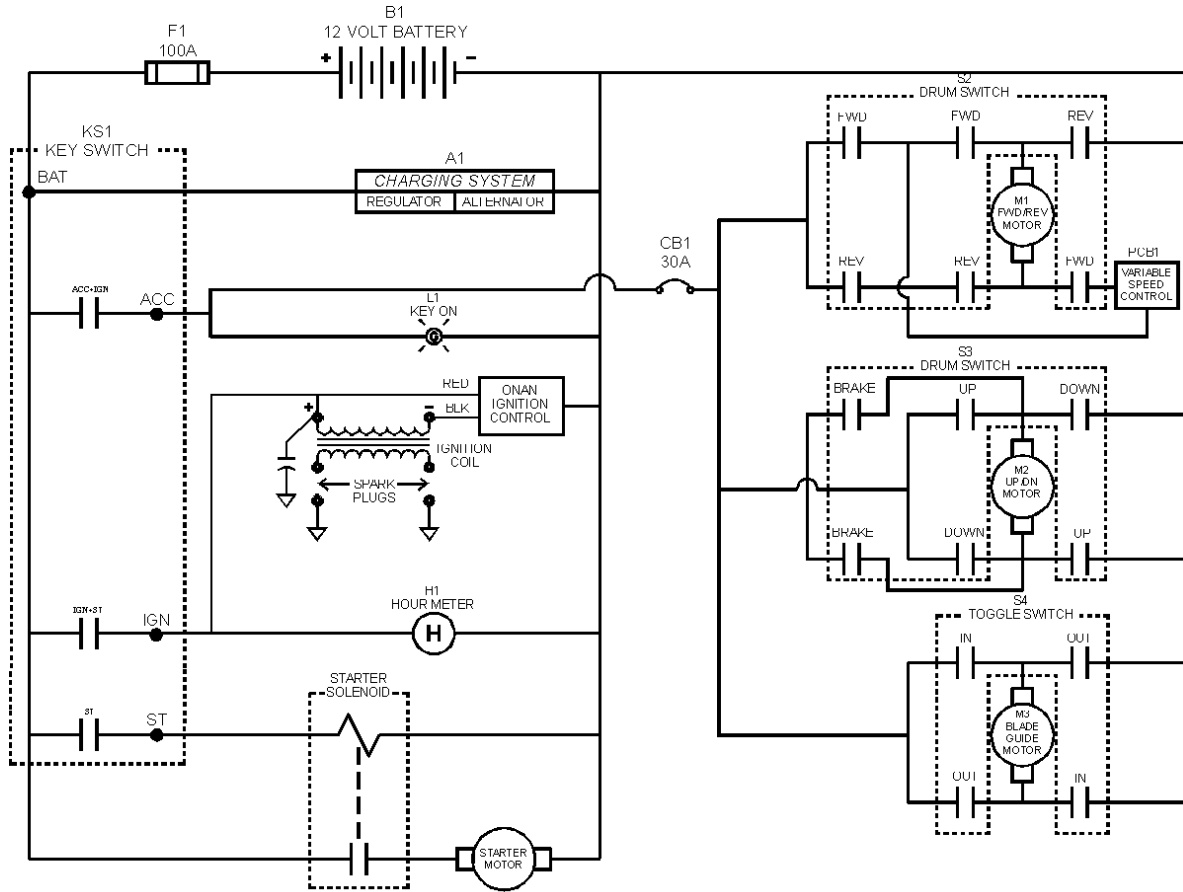
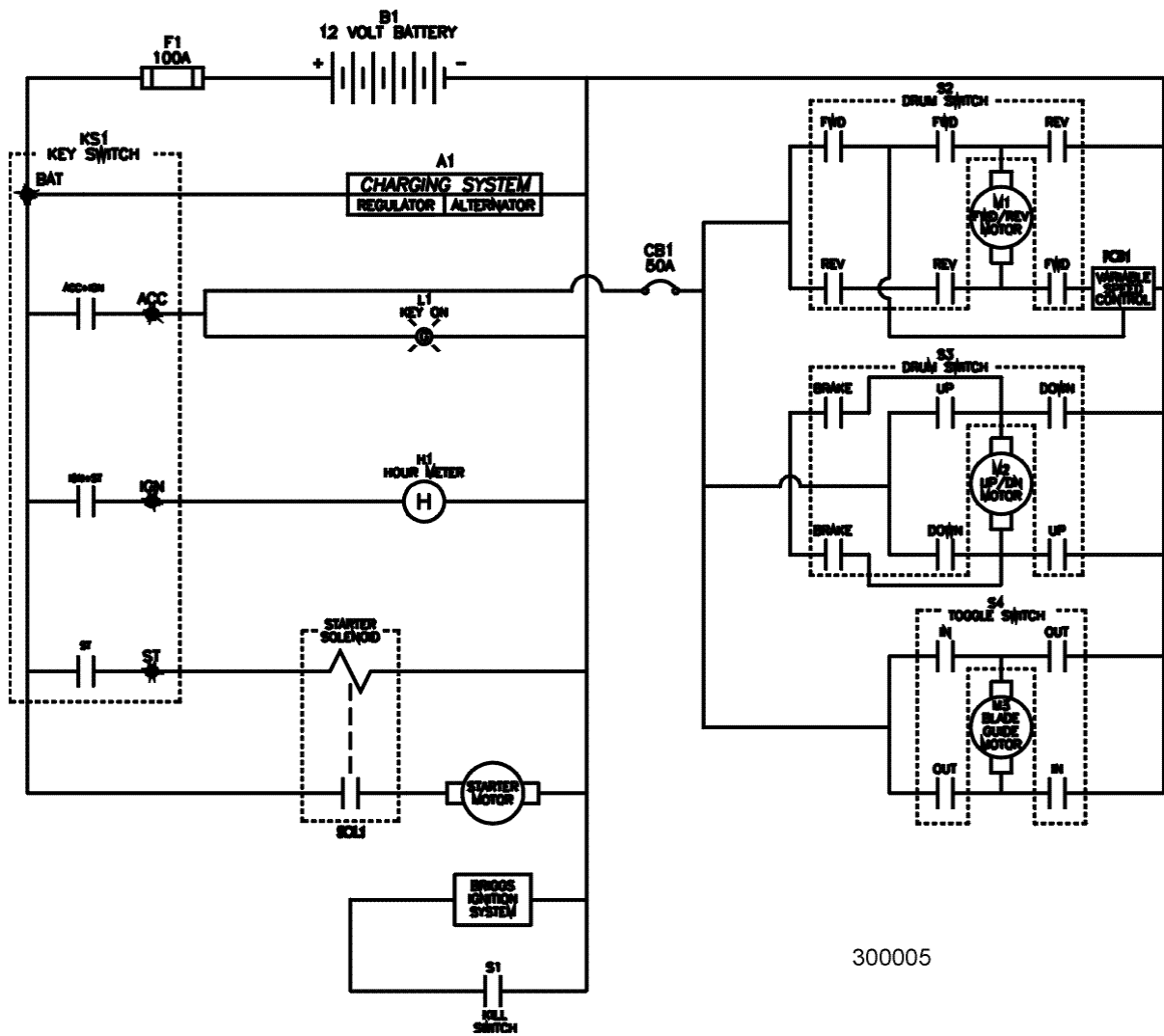


FIG. 5-1



**5.2 Electrical Symbol Diagram, LT30/LT40 Briggs & Stratton G18**



300005

FIG. 5-2

### 5.3 Electrical Components, LT30/LT40 G18

Component	Manufacturer Part No.	Manufacturer	Wood-Mizer Part No.	Description
B1	524MFD	Deka	P09725-1	Battery, 12 Volt LT30/40 ( <a href="#">See Section 5.4</a> )
CB1	30128-30	Cole-Hersee	E20486 <sup>1</sup>	Circuit Breaker, 30 Amp, 12 Volt, For Power Feed Motor, Auto Reset
F1	RL-100	Gould	P11549	Fuse Link, 100 Amp, 250 Volt For Main + 12 Volt Starter, Alternator
H1	T40 Series	ENM Corp.	P09631	Hour Meter, 12 Volt, Low Power T40 Series
KS1	121801	General	P04350	Key Switch, 4-position (Accessory, Off, Ignition, Start)
L2	2129	General	P20436	Light, Green Indicator, For Key Switch In Acc Or Ign Position
M1	1149-001	Current App.	006747 <sup>2</sup>	Motor, 12 Volt Power Feed
M2	N/A	Leeson <sup>3</sup>	A04367	Motor, 12 Volt Up/Down
M3	P09698-1	Klauber	A10365	Motor, 12 Volt Blade Guide Arm 53:1 Gear
PCB1	024495	Wood-Mizer	024495 <sup>4</sup>	Circuit Board, Power Feed
S1	100-S	McGill	P07915 <sup>5</sup>	Engine Kill Switch (Briggs Engine Only)
S5	2601-AF2-S11	Square D	E20439	Drum Switch, U.S., Power Feed Fwd/Reverse Motor
S6	2601-AF2-S12	Square D	E20440	Drum Switch, Up/Down Motor
S7	1121-0004	McGill	P10006	Toggle Switch, Blade Guide In/Out Motor
SOL1	120-943	United Tech.	016372 <sup>6</sup>	Solenoid, Low-Cost Multi-Purpose 12 Volt 3 Terminal (Briggs Engine Only)

<sup>1</sup> 30 Amp breaker replaces E20434 50 Amp breaker 10/9/95.

<sup>2</sup> Motor 006747 replaced 014359 supplied until 11/08. .25HP motor directly replaces .49HP motor P04140 (Owosso #PR-4P07Q). Requires two rubber boots (P03807) to protect external motor terminals.

<sup>3</sup> Replaces Leeson motor #S.I. 2917-A (10/01) and Owosso motor #PV-28147Q originally supplied (12/00).

<sup>4</sup> Replaces A20428 originally supplied before 4/99. New assembly includes LED indicator lights for easier troubleshooting. Modularized components and surface mount technology improve durability and power capability.

<sup>5</sup> Part is obsolete and no longer available. Customer should be able to source locally.

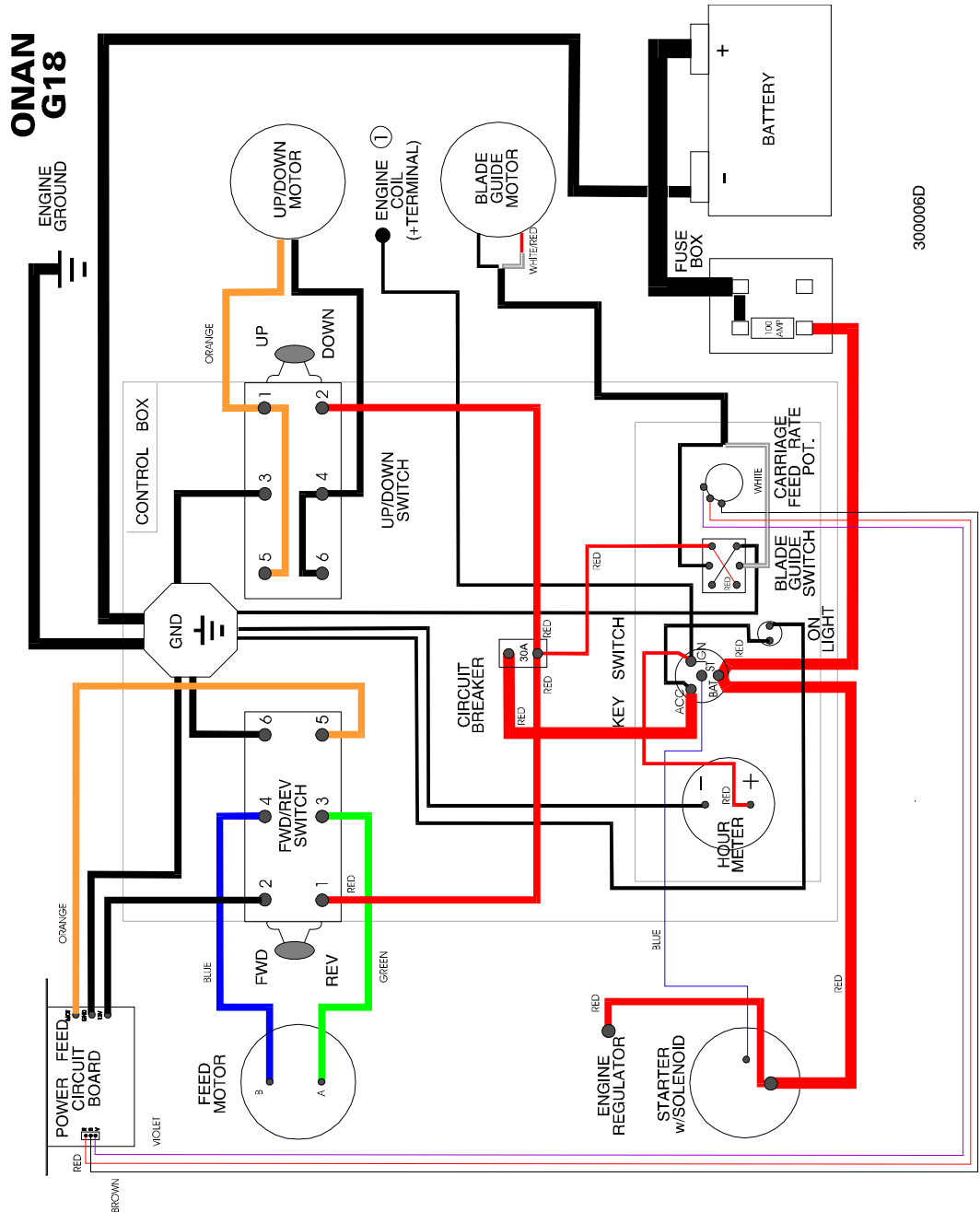
<sup>6</sup> Solenoid Kit 016372 replaces Solenoid P10449. Kit includes solenoid and replacement instructions.

### 5.4 Battery Specifications, LT30/LT40 G18

Group No.	Type No.	Performance Level		Approximate Weight	Maximum Overall Dimensions		
		Cranking Performance	Reserve Capacity	Wet	Length	Width	Height
24	524MFD	535CC	90	35.5 lb. (16.1 kg)	10.25 in. (260 mm)	6.75 in. (171 mm)	9.0 in. (229 mm)

**TABLE 5-1**

5.5 Wiring Diagram, LT30/LT40 Onan G18

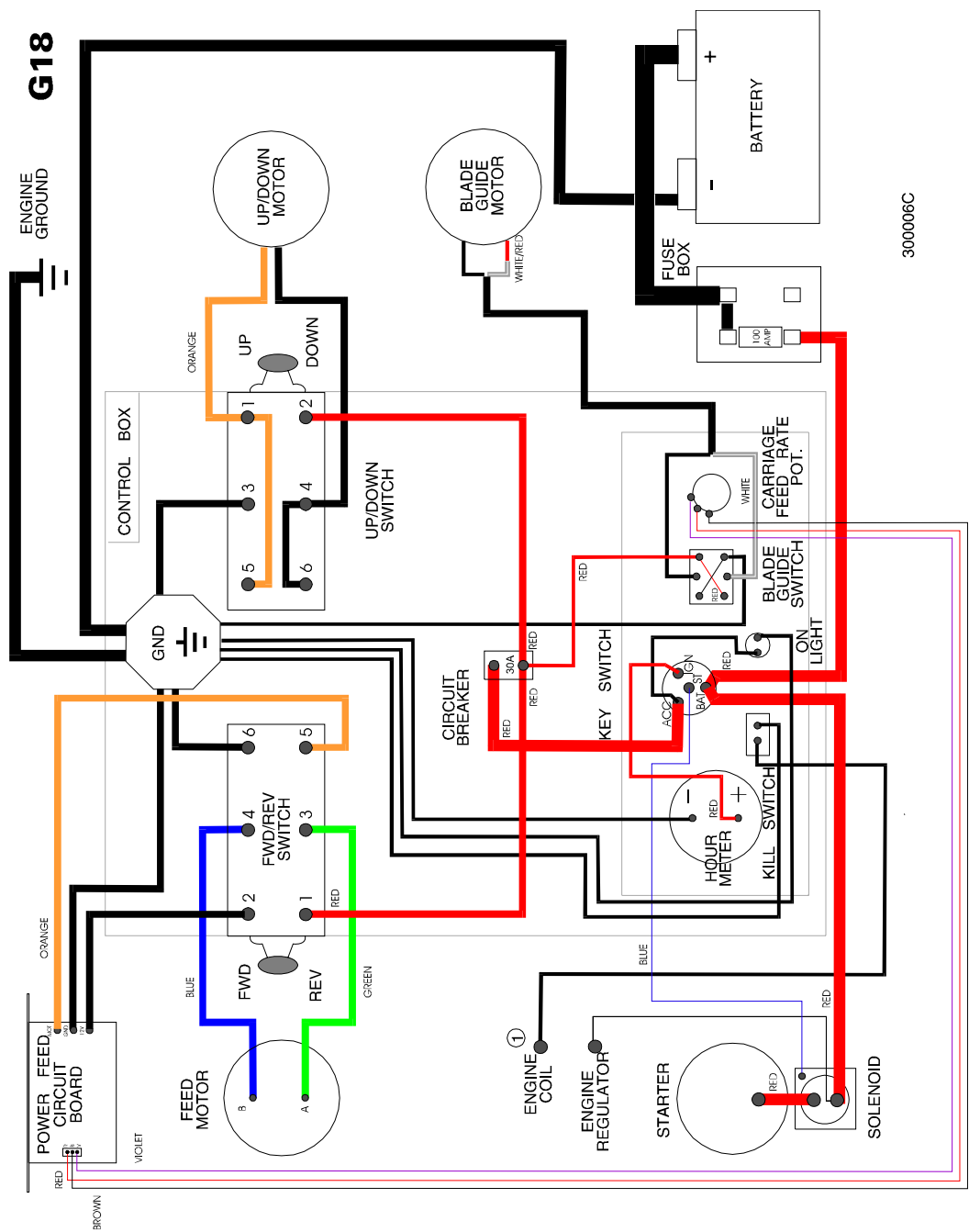


300006D

① WARNING: Incorrect connection will damage ignition module.  
 NOTE: Black Wires Not Labeled With Color Designations

FIG. 5-3

### 5.6 Wiring Diagram, LT30/LT40 Briggs & Stratton G18



300006C

① WARNING: Incorrect connection will damage ignition module.  
 NOTE: Black Wires Not Labeled With Color Designations

**FIG. 5-4**