

# Autoclutch Option

## Safety, Installation, Operation, & Parts Manual

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024643 (Installed, Super)	rev. A.00 - A.08
036143 (Installed, Non-Super)	rev. A.00 - A.08
024636 (Boxed, All Mills)	rev. A.00 - A.08

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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.

*Form #926*

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## SECTION 1 AUTOCLUTCH INSTALLATION

The Autoclutch Option allows you to engage the blade using a toggle switch on the control panel. This section will instruct you on how to install the option yourself. If your autoclutch option was factory-installed with a new sawmill, you can skip to the next section.

### 1.1 Manual Clutch Lever Removal

1. Raise the saw head so the clutch mounting hardware is located so it is comfortable for you to work on. Move the saw head forward or back on the frame so you will be able to easily access the clutch turnbuckle.
2. Turn the key switch to the OFF position and remove the key. Remove the battery box lid and disconnect the cable from the negative battery terminal.



**DANGER!** Before performing any service to this equipment, turn the key to the OFF position, remove the key, and disconnect the cable from the negative terminal on the sawmill battery. Remove the blade from the saw head. Failure to do so will result in serious injury or death.

3. If installing the autoclutch to an electric-powered sawmill, disconnect and lock out the incoming power supply.



**DANGER!** On electric mills, hazardous voltage inside the disconnect box, starter box, and at the electric motor can cause shock, burns, or death. Disconnect and lock out power! Follow all applicable electrical codes.

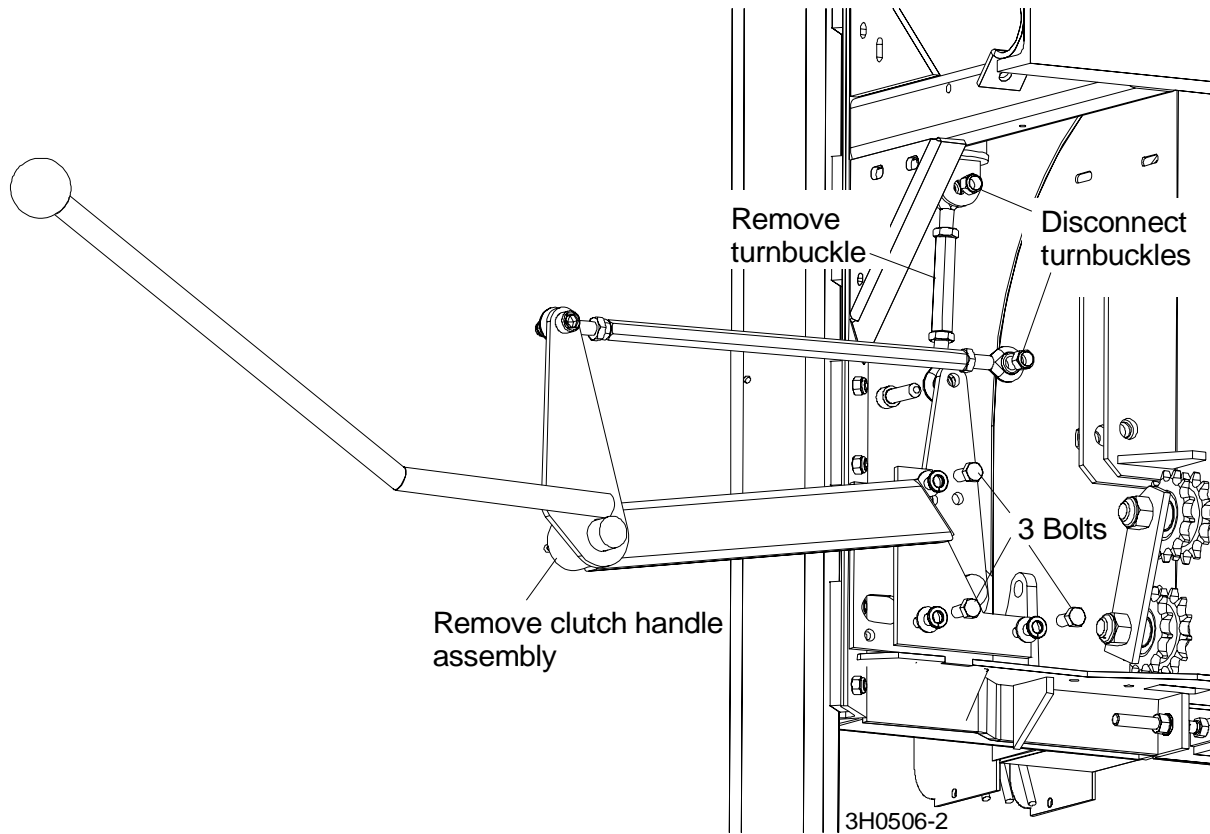
4. Remove the drive belt housing covers to access the clutch handle and turnbuckle linkage.
5. With the clutch handle disengaged (up), locate the clutch pivot plate where both the long and short turnbuckles are connected.

# 1

## Autoclutch Installation

### Manual Clutch Lever Removal

See Figure 1-1.



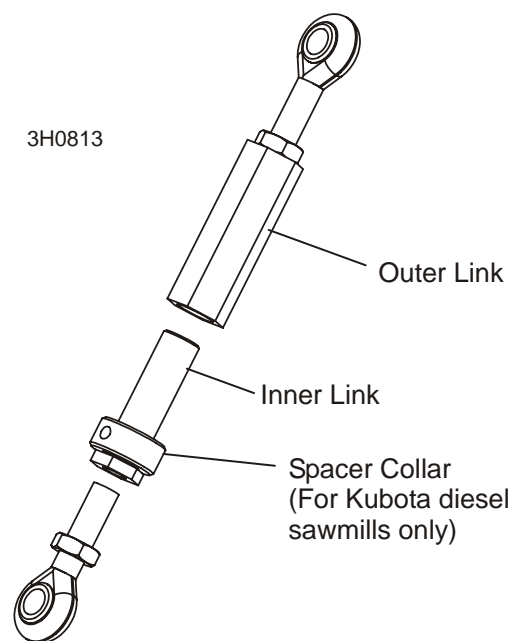
**FIG. 1-1**

6. Remove the bolt and nut securing the long and short turnbuckles to the pivot plate. Save the bolt and nut for installation of the Autoclutch turnbuckle.
7. Remove the bolt and nut securing the short turnbuckle to the engine/motor mount. Remove the short turnbuckle assembly. Save the bolt and nut for installation of the Autoclutch turnbuckle.
8. Remove the three bolts securing the clutch handle to the saw head. Remove the clutch handle assembly.

## 1.2 Autoclutch Assembly Installation

1. If you are installing the autoclutch option to a sawmill equipped with a Kubota diesel engine, install the provided collar spacer to the autoclutch turnbuckle. Loosen the jam nuts and turn the inner and outer links until they separate. Install the spacer collar to the inner link. Reassemble the inner and outer links and tighten the jam nuts.

See Figure 1-2.



**FIG. 1-2**

# 1

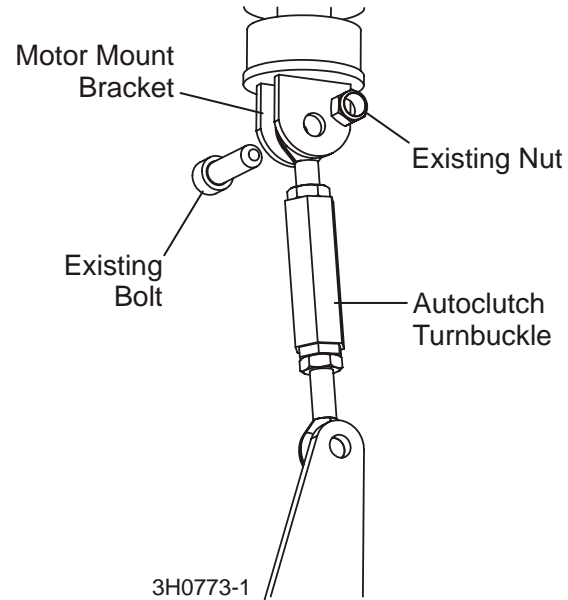
## Autoclutch Installation

### *Autoclutch Assembly Installation*

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2. Install the supplied short turnbuckle assembly to the engine/motor mount using the previously removed bolt and nut. Position the turnbuckle so the end with two hexes is on the bottom.

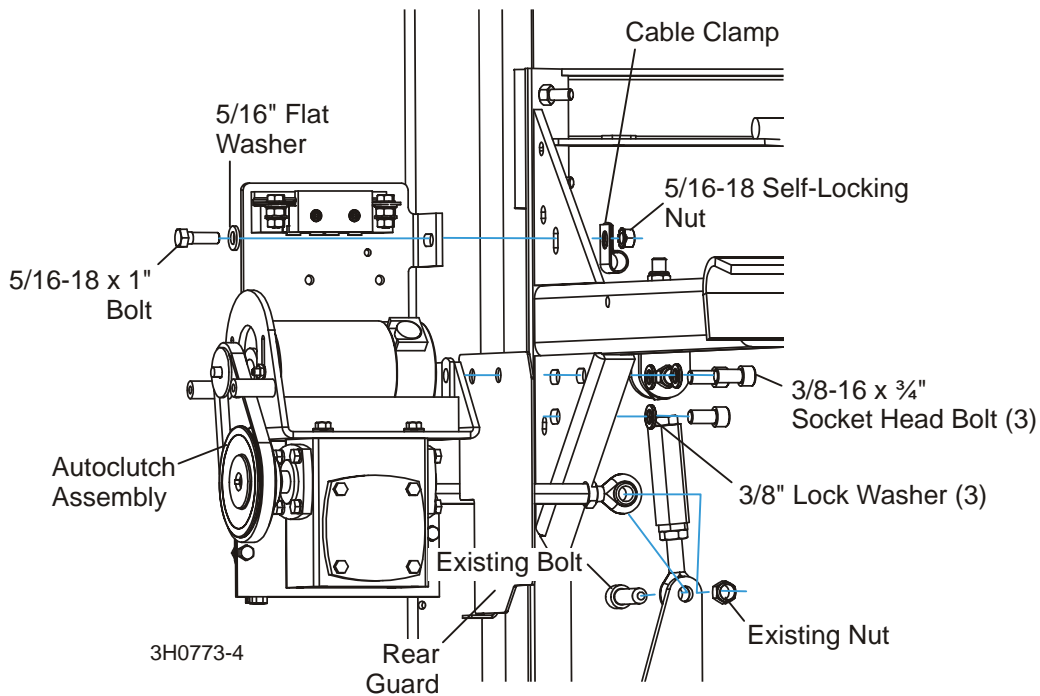
See Figure 1-3.



**FIG. 1-3**

3. Remove the three socket head bolts and lock washers from the back of the autoclutch drive assembly. Place the rear guard over the three slotted holes located under the engine/motor mount plate. Use the three socket head bolts and lock washers to install the autoclutch assembly to the saw head.

See Figure 1-4.



**FIG. 1-4**

4. Use the 5/16-18 x 1" bolt, washer, cable clamp, and lock nut supplied in the bag assembly to secure the top of the autoclutch bracket to the saw head.
5. Connect the autoclutch link arm and turnbuckle to the clutch pivot plate using the previously removed bolt and nut. The turnbuckles will be adjusted after the autoclutch is installed and operational.

### 1.3 Control Component Installation

Install the provided circuit breaker and toggle switch to the sawmill control box.

1. Remove the eight screws securing the front panel to the sawmill control box. Lift the panel out and flip around to access the back side (leave all wires attached).

See Figure 1-5.

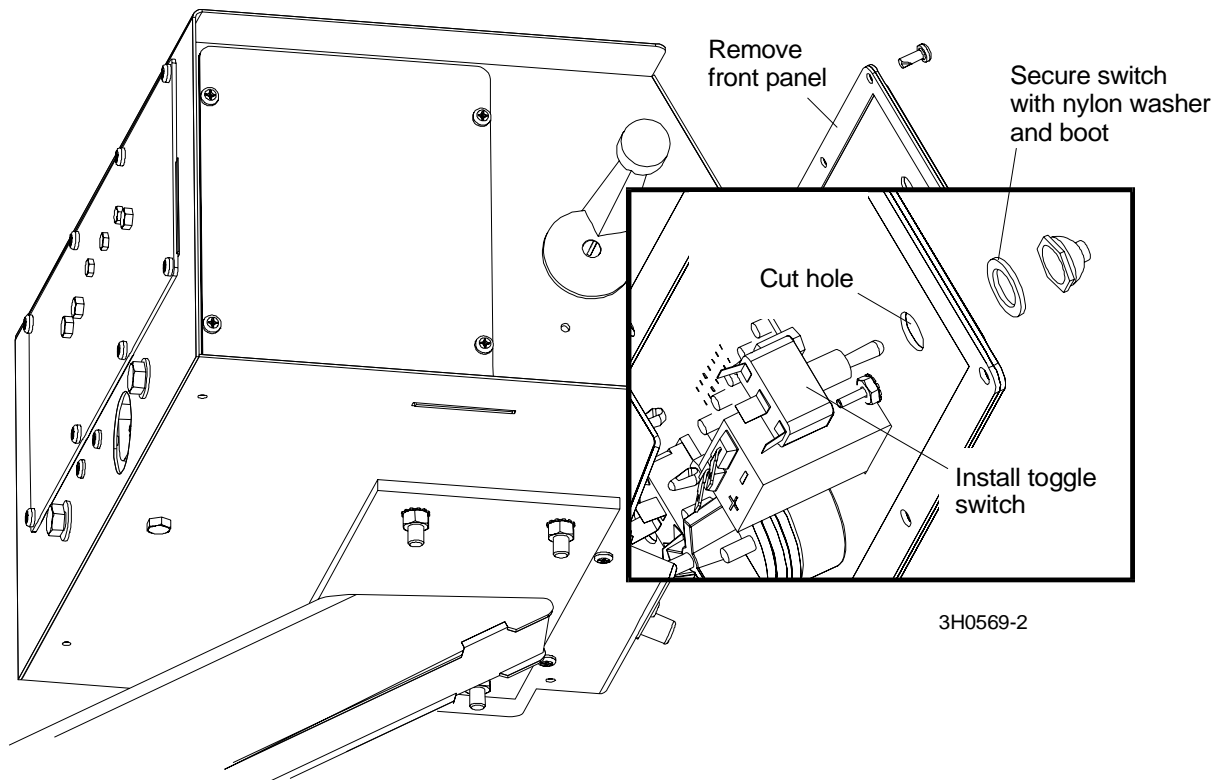



FIG. 1-5

2. Locate the hole for the autoclutch switch (labeled with  on the front panel). Carefully use a sharp razor knife to cut a hole in the lexan decal, using the hole in the back of the metal panel as a guide.
3. Be sure the hex nut on the toggle switch is threaded all the way down against the body of the switch. Install the toggle switch through the panel hole. Position the switch body so the switch operates up and down. Secure the switch to the panel with the supplied nylon washer and rubber boot.



**NOTE:** Sawmills equipped with Caterpillar diesel engines (D34 & D51) already have the circuit breaker described below installed. Skip to [Section 1.4 Wiring Instructions](#).

4. Remove the eight screws securing the rear panel to the sawmill control box. Lift the panel out and set on top of the control box, leaving all wires attached.

See Figure 1-6.

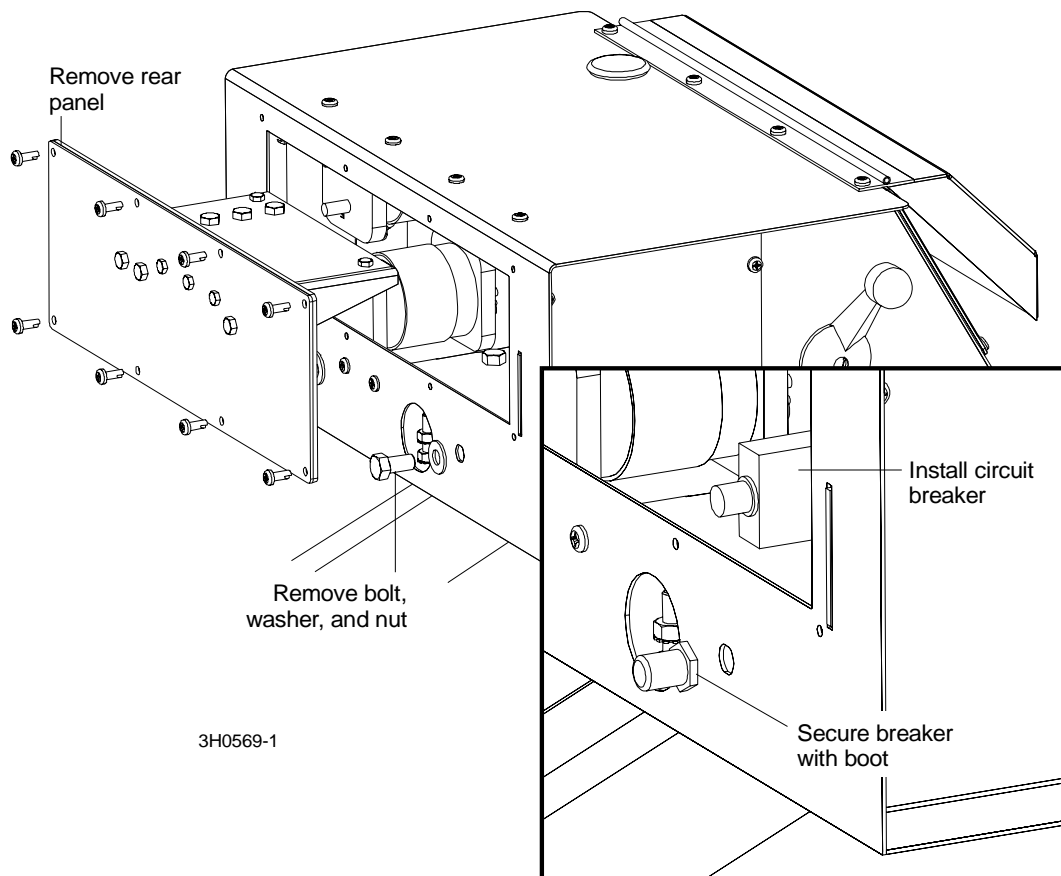


FIG. 1-6

5. Locate the 3/8" bolt and nut in the rear of the control box toward the right side. Remove the bolt and nut from the control box. Place the provided 30 amp circuit breaker inside the control box and insert the breaker reset button through the hole in the rear of the control box. Secure the breaker to the control box with the boot provided.
6. Peel the back from the provided circuit breaker label and place the decal on the control box under the circuit breaker.

## 1.4 Wiring Instructions



**DANGER!** The key switch should still be off, the key removed and the negative battery cable disconnected as stated at the beginning of this section. The incoming power supply of electric-powered sawmills should be disconnected and locked out. Failure to do so will result in serious injury or death.



**IMPORTANT!** Avoid pinch and pivot points, unnecessary wire bending and open spaces where the wire could get caught by a log, etc. If you have any questions, call Wood-Mizer customer service.

**Refer to the appropriate wiring diagram while performing the wiring steps below ([See Section 5.3](#)).**

1. 1998 and newer model sawmills are pre-wired for the autoclutch option. Locate the harness of four wires (#28, 29, 31, & 32) extending from the top of the conduit connecting the control box to the saw head.

**NOTE:** On sawmills equipped with Caterpillar diesel engines (D34 & D51), wire #31 is connected to the clutch sensor which operates the engine throttle. Remove the rubber tubing from this connection to add the autoclutch wire connections.

2. Remove any wire ties, tape or cable clamps securing the harness in its storage location. If necessary, install the provided expandable conduit around the four wires and route the assembly through the cable clamp you installed behind the autoclutch assembly. Continue the cable to the autoclutch. **NOTE:** The laser option wire #25 may be bundled with the autoclutch option wires. If so, separate wire #25 and return it to the storage location.
3. Pull back the harness conduit to expose the four wires. Connect the 12 gauge black wire (#32) to the ground terminal (GND) on the autoclutch mosfet module. Remove the nut on the ground terminal and slide the wire ring terminal onto the stud. Replace the ground terminal nut. Be sure the ring terminal body does not contact any other surfaces. If your sawmill was built prior to 6/21/99, you will need to replace the ring terminal on wire #32 with the 1/4" terminal supplied so it will fit the mosfet module ground terminal.

See Figure 1-7.

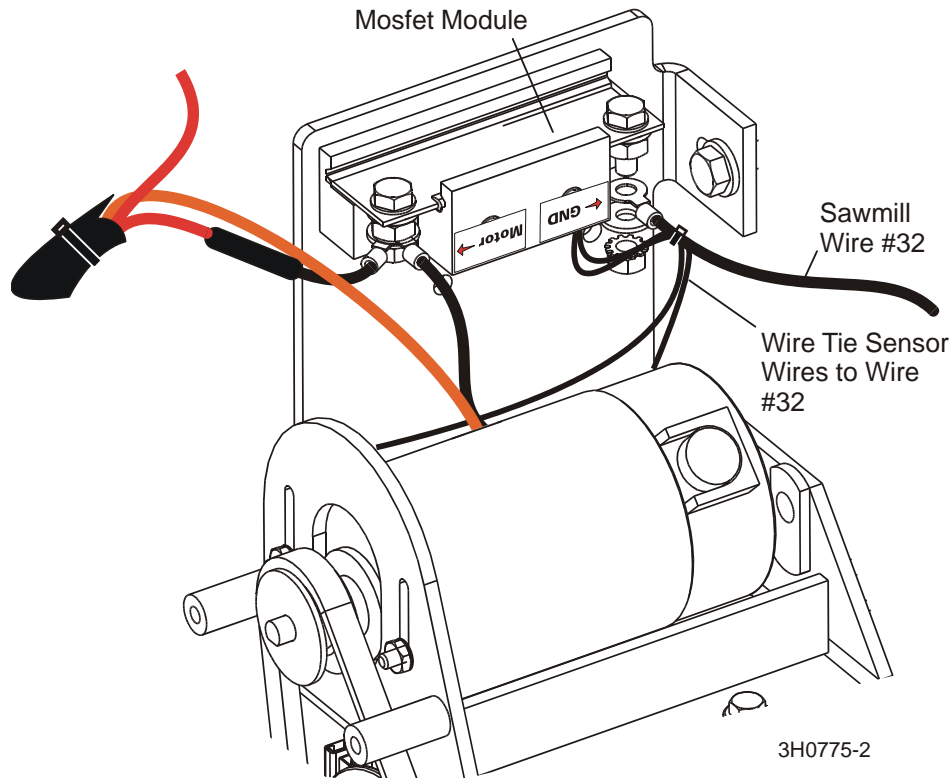


FIG. 1-7

4. Use one of the supplied small wire ties to secure the two small black wires connecting the sensors to the mosfet module to wire #32. Leave enough slack in the small wires so the connection to the mosfet module is not tight.
5. Connect the 12 gauge red wire (#31), the red end of the diode wire from the autoclutch mosfet module and the orange autoclutch motor wire. Be sure to maintain the connection of the clutch sensor wire on D34 & D51 models. If your sawmill was built prior to 6/21/99, you will need to replace the ring terminal on wire #31 with the #10 terminal supplied so it will fit the other wire terminals. Place the three (or four for D34/D51) wire terminals together and secure with the provided #10-24 x 3/8" screw and lock nut. Slide the provided rubber tube over the terminal connection leaving half of the tube overhanging. Fold the remaining half along the wires and secure with one of the large wire ties provided.

# 1 Autoclutch Installation

## Wiring Instructions

See Figure 1-8.

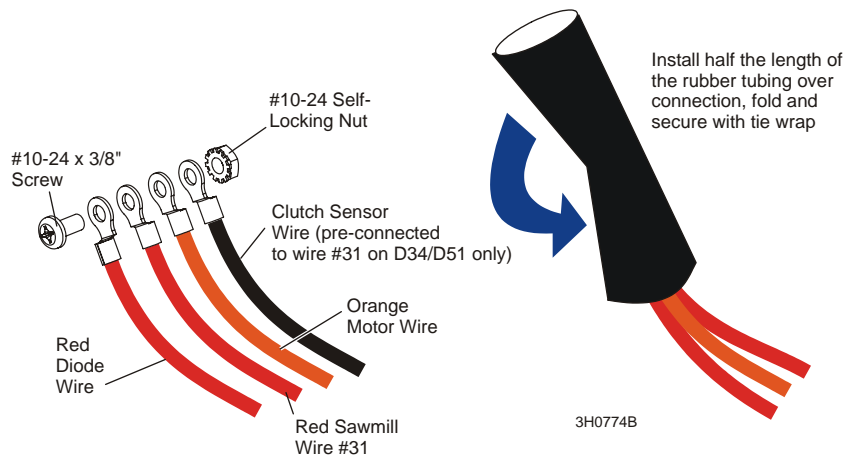


FIG. 1-8

6. Connect one of the 14 gauge red wires (#28) to the black (or red prior to 4/02) wire from the autoclutch engage sensor. These wires have quick connects which simply snap together. Connect the other 14 gauge red wire (#29) to the black (or red prior to 4/02) wire from the autoclutch disengage sensor in the same manner.

See Figure 1-9.

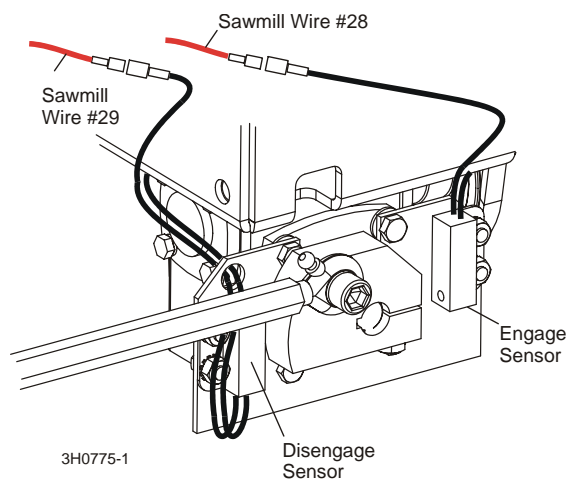


FIG. 1-9

7. In the control box, locate the harness of four wires (#28, 29, 31, & 32). Remove any wire ties, tape, or cable clamps securing the harness in its storage location. Pull back the harness conduit to expose the four wires. **NOTE:** Black wire #32 should be pre-installed to the ground terminal stud in the bottom of the control box.

8. Connect the 14 gauge red wire (#28) to the bottom terminal of the autoclutch toggle switch. Slide the wire terminal onto the switch terminal tab. Connect the other 14 gauge red wire (#29) to the top terminal of the autoclutch toggle switch in the same manner.
9. Connect the pre-installed red wire from the middle terminal of the autoclutch toggle switch to the Accessory circuit breaker. The Accessory circuit breaker is the second from the left as you face the front of the control box. Remove the nut from the circuit breaker "AUX" terminal stud (closest to the front of the control box). Slide the wire ring terminal onto the circuit breaker terminal stud and replace the nut. Be sure to maintain all other wire connections on the circuit breaker terminal.
10. Connect the 12 gauge red wire (#31) to the bottom terminal of the 30 amp circuit breaker you installed to the back wall of the control box. Slide the wire connector onto the circuit breaker tab. **NOTE:** Wire #31 is already connected to the existing circuit breaker on D34 & D51 models with Caterpillar diesel engines.
11. Connect the pre-installed red wire from the top terminal of the circuit breaker to the Accessory post on the key switch. Remove the ACC terminal nut, slide the wire ring terminal over the key switch terminal and replace the nut. Be sure to maintain all other wire connections on the key switch terminal.
12. Use the supplied wire ties to secure all harnesses and/or wires to prevent interference with any moving components of the saw head or in the control box.
13. Replace the front and rear control box panels and screws. Reconnect the negative battery cable and replace the battery box cover. Place the key in the key switch and turn to the "ACC" position. Continue to the next section for autoclutch adjustment procedure.

# 1

## Autoclutch Installation

### Turnbuckle Adjustment

#### 1.5 Turnbuckle Adjustment

1. Raise the autoclutch toggle switch until the autoclutch motor quits cycling. The autoclutch should pivot the engine/motor mount up, engaging the drive belt.
2. Check the drive belt tension (refer to your engine manual for proper drive belt tension specifications). If adjustment is needed, loosen the bottom lock nut on the autoclutch turnbuckle.

Tighten the drive belt by adjusting the inner or outer rod link to lengthen the turnbuckle. Loosen the drive belt by adjusting the inner or outer rod link to shorten the turnbuckle. Then, tighten the bottom lock nut to secure in place.

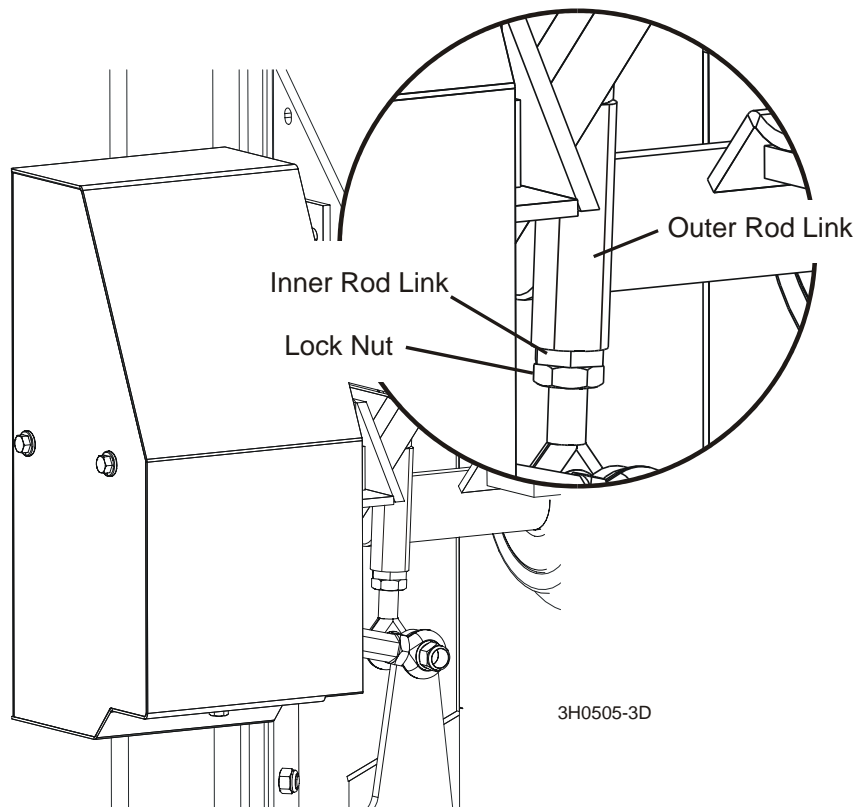
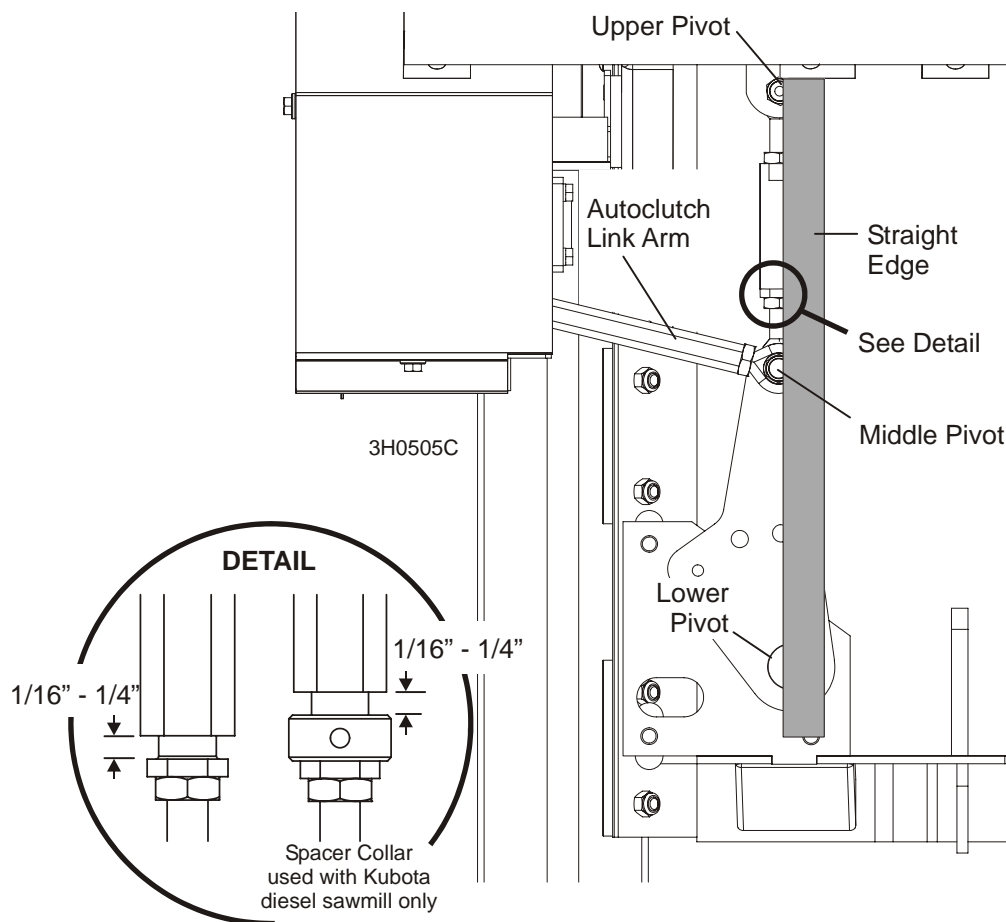


FIG. 1-9

3. Place a straight edge between the upper and lower clutch pivot centers. Make sure the middle pivot is aligned to the straight edge. If it is not, adjust the autoclutch link arm.

To adjust, disassemble one end of the autoclutch link arm and adjust the rod end in or out as required. Reassemble the link arm and repeat Step 3.

**See Figure 1-10.**



**FIG. 1-10**

4. Lower the autoclutch toggle switch until the autoclutch motor quits cycling. The autoclutch should pivot the engine/motor mount down, disengaging the drive belt.
5. With the drive belt disengaged, recheck the autoclutch turnbuckle. Measure the distance between the outer rod link the inner rod link (outer rod link and spacer collar for Kubota diesel sawmills). Adjust the brake strap as needed (refer to your operator's manual for specific adjustment procedures). If the distance is less than 1/16", tighten the brake strap. If the distance is more than 1/4", loosen the brake strap.

# 1 Autoclutch Installation

## Guard Installation

### 1.6 Guard Installation

1. If it is not already installed, use the supplied 1/4-20 x 1/2" bolts and split lock washers to secure the front guard in place. Secure the back guard to the front guard from underneath using the supplied 1/4-20 x 3/4" bolt.

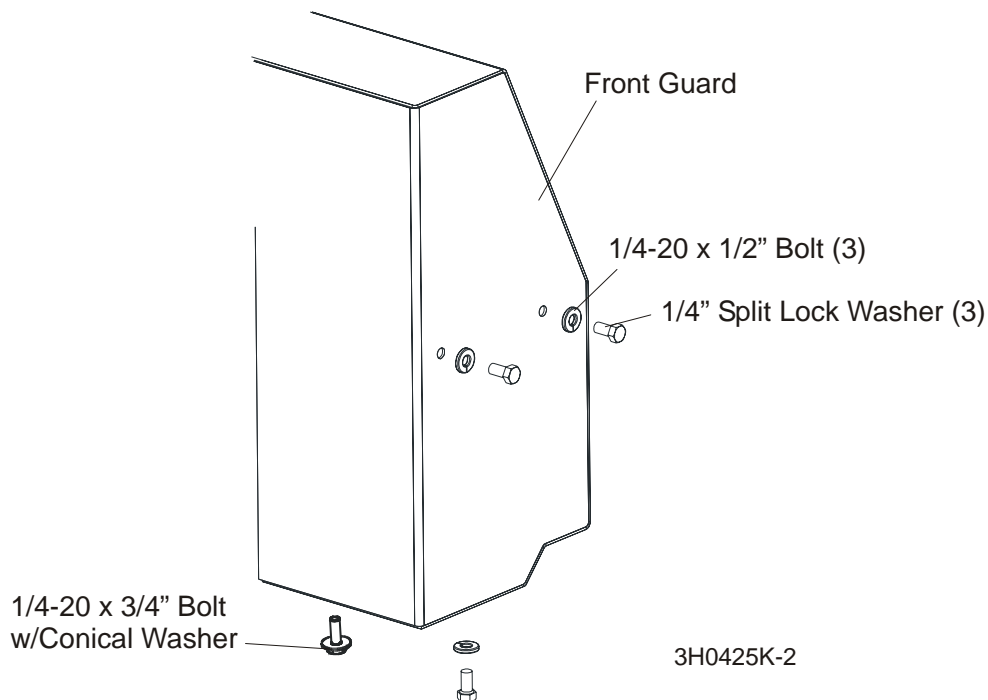


FIG. 1-10

2. Replace all saw head covers. Use the provided lower belt guard assembly to replace the original lower guard. Assemble the lower belt guard to the mount with the 1/4-20 x 1/2" hex head bolts and flat washers provided.



**CAUTION!** When replacing or installing guards, be careful not to pinch any wiring. Damage to the wiring and/or electrical components may result.

3. Install the guard assembly to the sawmill using six 1/4-20 x 3/4" hex head bolts with conical washers.
4. If your sawmill is not equipped with a board return mechanism mounted to the saw head, install the provided auxiliary guard plate as shown.

See Figure 1-11.



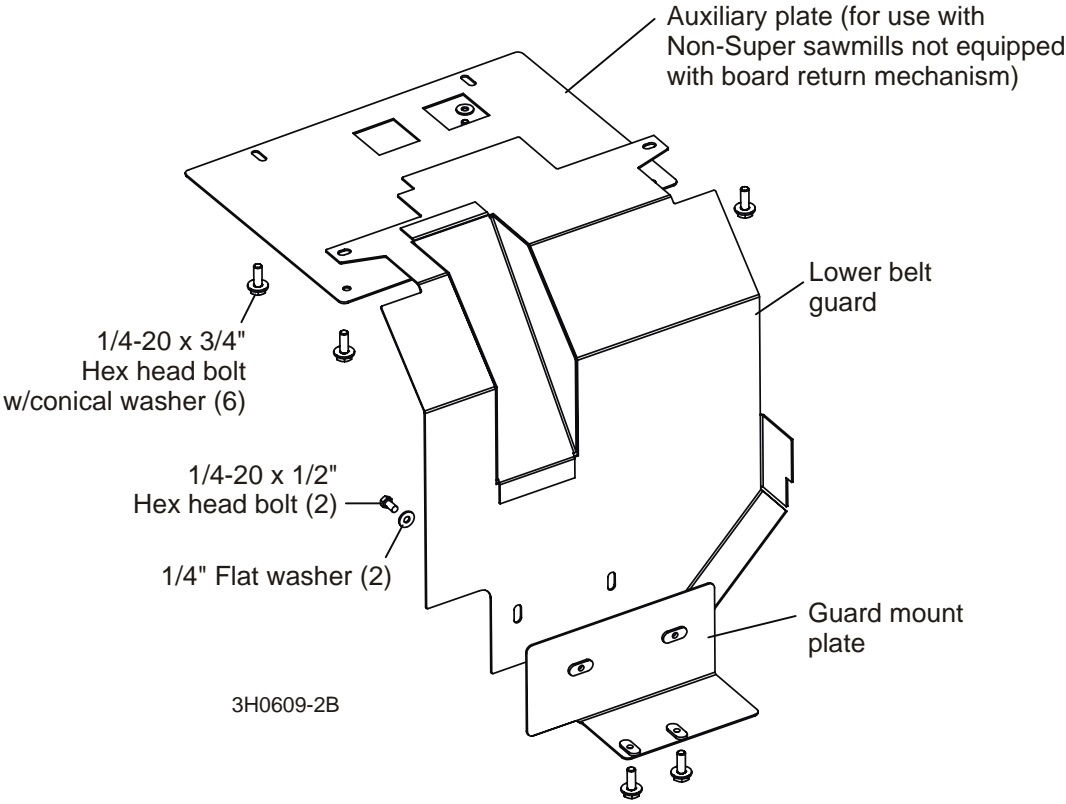


FIG. 1-11

## 2 Operation

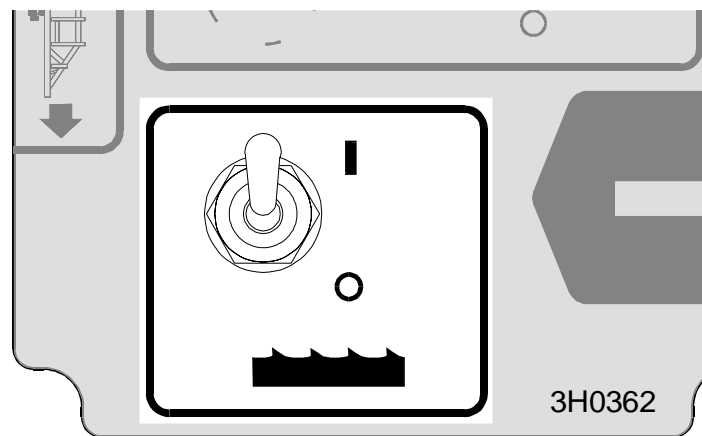
### SECTION 2 OPERATION



**See Figure 2-1.** All sawmill controls operate exactly as described in your sawmill operator's manual except the clutch/brake. Instead of pulling a handle to engage the blade, push the toggle switch on the control panel up. Hold the switch up until the clutch motor stops completely. The autoclutch mechanism will disengage the brake, rev the motor to full throttle, and start the blade spinning.



**DANGER!** Keep all persons out of the path of moving equipment and logs when operating sawmill or loading and turning logs. Failure to do so will result in serious injury.



**FIG. 2-1**

To stop the blade and engage the blade brake, push the toggle switch down. This will also return the engine to idle.

**NOTE:** Be sure the toggle switch stays in the up or down position. The boot on the switch may spring the switch back to neutral. You may need to hold the switch in position until the remote clutch motor completes its cycle.

## SECTION 3 MAINTENANCE

**⚠ DANGER!** On electric mills, hazardous voltage inside the disconnect box, starter box, and at the electric motor can cause shock, burns, or death. Disconnect and lock out power supply before performing autoclutch installation! Follow all applicable electrical codes.

**DANGER!** Make sure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes. Failure to do so will result in serious injury or death.

**DANGER!** Before performing any service to this equipment, turn the key to the OFF position, remove the key, and disconnect the battery ground terminal. Failure to do so will result in serious injury or death.

### 3.1 Autoclutch Belt

See Figure 3-1. Tighten the clutch belt as necessary to prevent slippage.

Remove the three cover bolts and washers and remove the cover. Loosen the clutch motor mounting bolts and slide the motor up to tighten the belt.

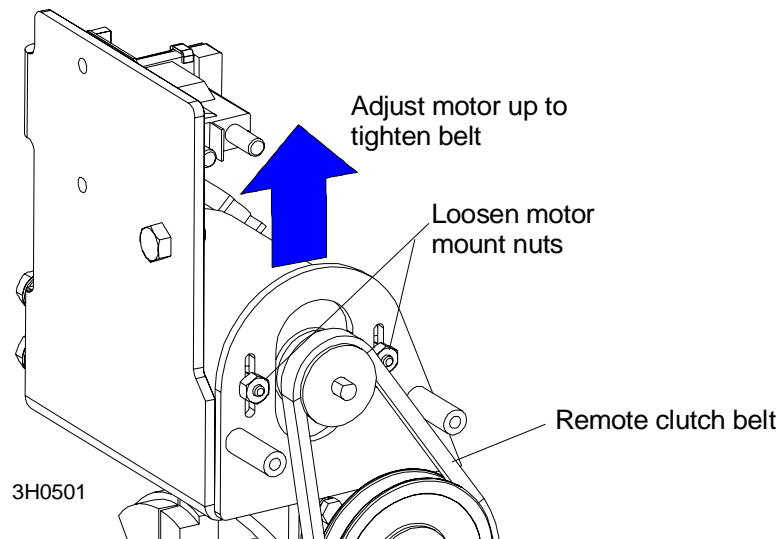


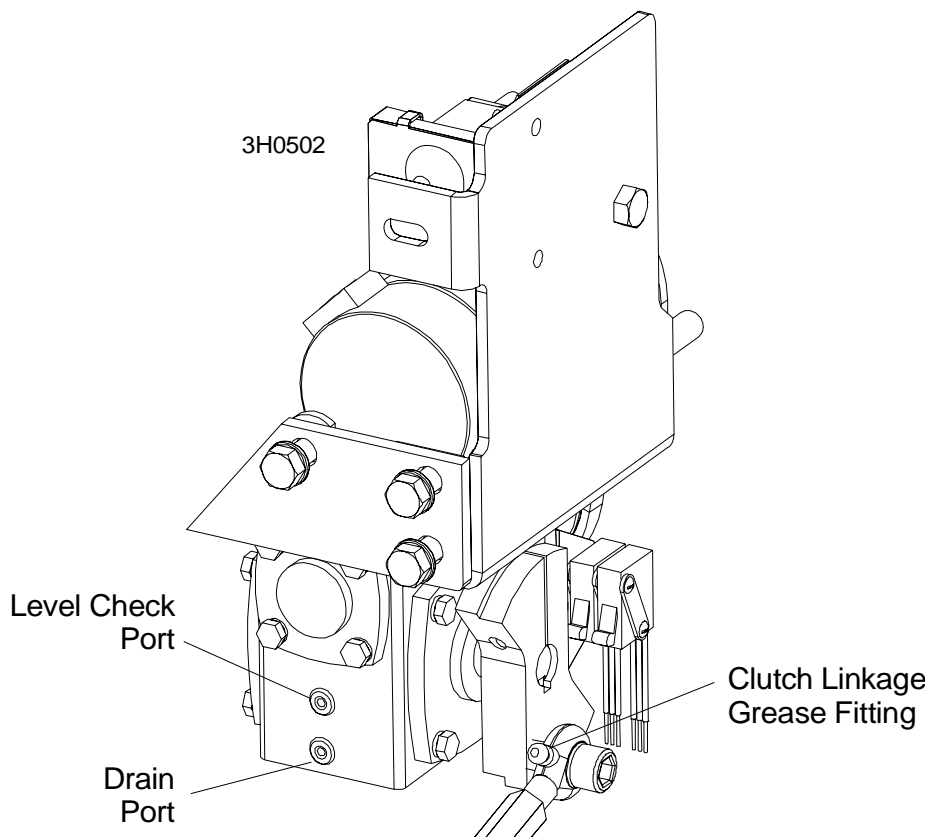
FIG. 3-1

Inspect the belt for wear or cracks and replace as necessary.

### 3.2 Lubrication

**See Figure 3-2. Rev. A.00 - A.07 Only:** Check the clutch gear box oil level. Remove the level plug at the rear of the gear box. The oil level should be right at the plug hole.

Drain and refill the gearbox after the first 100 hours of sawmill operation. Use a synthetic gear oil such as Mobil SHC 634. Repeat every 5000 hours or once a year, whichever comes first.



**FIG. 3-2**

Lubricate the autoclutch linkage every 100 hours of operation. Apply a NLGI No. 2 grade lithium grease to the fitting at each end of the clutch linkage connected to the gear box.

### 3.3 Drive Belt Adjustment



**WARNING!** Do not for any reason adjust the engine drive belts or belt support bracket with the engine running. Doing so may result in serious injury.



**See Table 3-1.** See the table below for drive belt tension specifications for your model sawmill.

Engine/Motor	After First	Then Every	Belt Tension
<b>G24/G25</b>	20 hrs	50 hrs	7/16" (11 mm) deflection with 14 lbs. of deflection force <sup>1</sup>
<b>D33/G36</b>	5 hrs	50 hrs	7/16" (11 mm) deflection with 18 lbs. of deflection force <sup>2</sup>
<b>D42/E25/G35/G36</b>	5 hrs	50 hrs	7/16" (11 mm) deflection with 18 lbs. of deflection force <sup>2</sup>

**TABLE 3-1**

<sup>1</sup> Belt tension specification increased from 8 lbs. to 14 lbs. (06/00) to eliminate frequent belt tension adjustments.

<sup>2</sup> Belt tension specification increased from 16 lbs. to 18 lbs. (09/00) to eliminate frequent belt tension adjustments. If installing a new 3/5VL drive belt (6/00+ D33, D42, E25, G35 & G36), initially tension the belt to 24 lbs. then 18 lbs. for subsequent adjustments.

1. Remove the two belt covers located underneath the engine.
2. Place a wrench on the flats at the top of the turnbuckle. Use a second wrench to turn the bottom-most jam nut clockwise (as viewed from the bottom) to tighten the belt, counter-clockwise to loosen the belt.

See Figure 3-3.

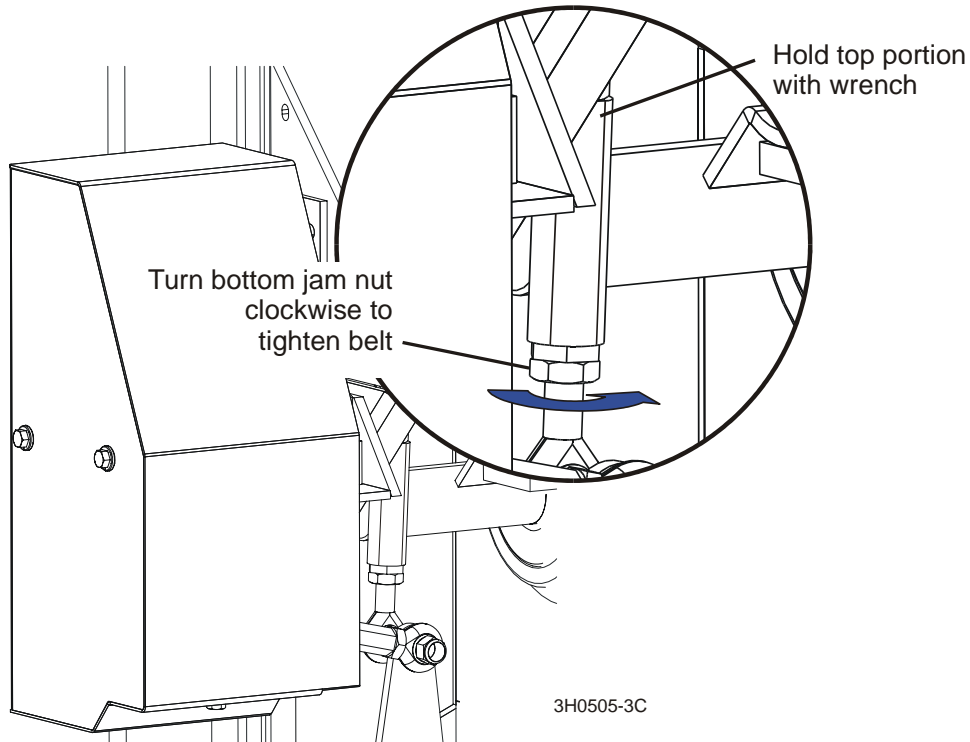


FIG. 3-3

- 3. Gas/Diesel Engines Only:** After tensioning the drive belt, check throttle cable tension and adjust if necessary. The throttle cable should be tensioned just enough so that the engine revs as soon as the autoclutch is engaged. The throttle linkage should NOT affect engine RPM while the autoclutch handle is disengaged. **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. Always be sure to check the drive belt support after adjusting drive belt tension.



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

### 3.4 Autoclutch Linkage

After every drive belt or brake strap adjustment, check the autoclutch linkage.

1. Remove the blade from the sawmill.
2. Remove the inside belt guard and push the autoclutch toggle switch up to engage the drive belts.

# 3

## Maintenance Autoclutch Linkage

3. Place a straight edge between the upper and lower clutch pivot centers. Make sure the middle pivot is aligned to the straight edge. If it is not, adjust the autoclutch link arm.

To adjust, disassemble one end of the autoclutch link arm and adjust the rod end in or out as required. Reassemble the link arm and repeat Step 3.

See Figure 3-4.

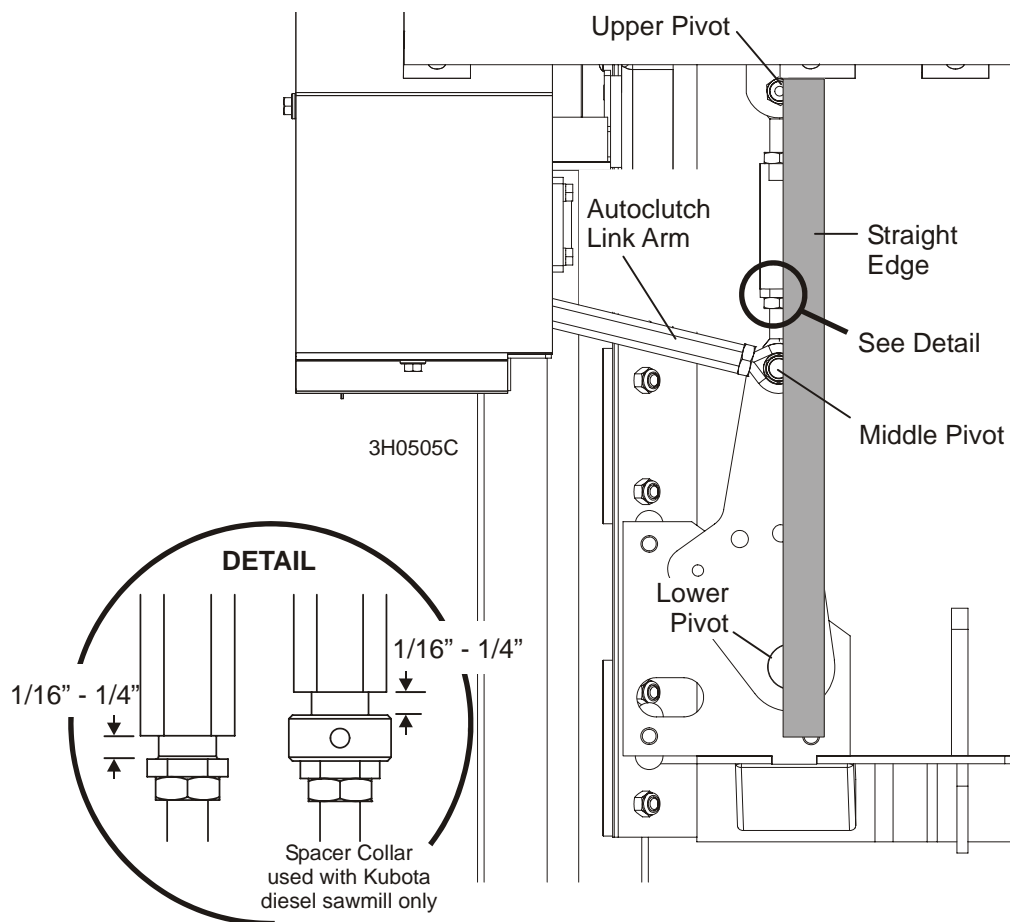


FIG. 3-4

4. Lower the autoclutch toggle switch until the autoclutch motor quits cycling. The autoclutch should pivot the engine/motor mount down, disengaging the drive belt.
5. With the drive belt disengaged, recheck the autoclutch turnbuckle. Measure the distance between the outer rod link the inner rod link (outer rod link and spacer collar for Kubota diesel sawmills). Adjust the brake strap as needed (refer to your operator's manual for specific adjustment procedures). If the distance is less than 1/16", tighten the brake strap. If the distance is more than 1/4", loosen the brake strap.



### 3.5 Troubleshooting

Problem	Cause	Solution
<b>Autoclutch will not stop; continues to engage and disengage</b>	Bad mosfet module	Use a diode meter to check diode wire assembly for proper operation. Replace diode and/or mosfet module as necessary.
	Bad sensor	Check sensor with ohm meter. Pass a piece of ferrous metal across sensor and check that the sensor opens. Replace sensor as necessary.
	Metal debris buildup causing sensor to open	Clear metal debris from sensors.
<b>Autoclutch will not engage or disengage</b>	15Amp or 30Amp breaker tripped; 15Amp ACC Breaker (CB4) tripped	Check and reset as needed
	Bad sensor	Check sensor with Ohm meter. Pass a piece of ferrous metal across sensor and check that the sensor opens. Replace sensor as necessary.
	Metal debris buildup causing sensor to open	Clear metal debris from sensors.
	Bad Autoclutch motor, motor brushes or armature	Disconnect both motor leads from circuit. Use an ohm meter to check continuity between the motor leads. If no continuity, inspect brushes, brush springs and armature. Rebuild or replace motor as necessary.
	Motor overheating	Drive belts are too tight. Check belt tension and adjust properly.
	Gearbox binding	Check gearbox oil. Refill or replace as necessary.
	Damaged switch	Replace switch

### **3** Maintenance

#### *Troubleshooting*

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**Autoclutch will engage or disengage only (won't do both)**

Bad sensor

Check sensor with ohm meter. Pass a piece of ferrous metal across sensor and check that the sensor opens. Replace sensor as necessary.

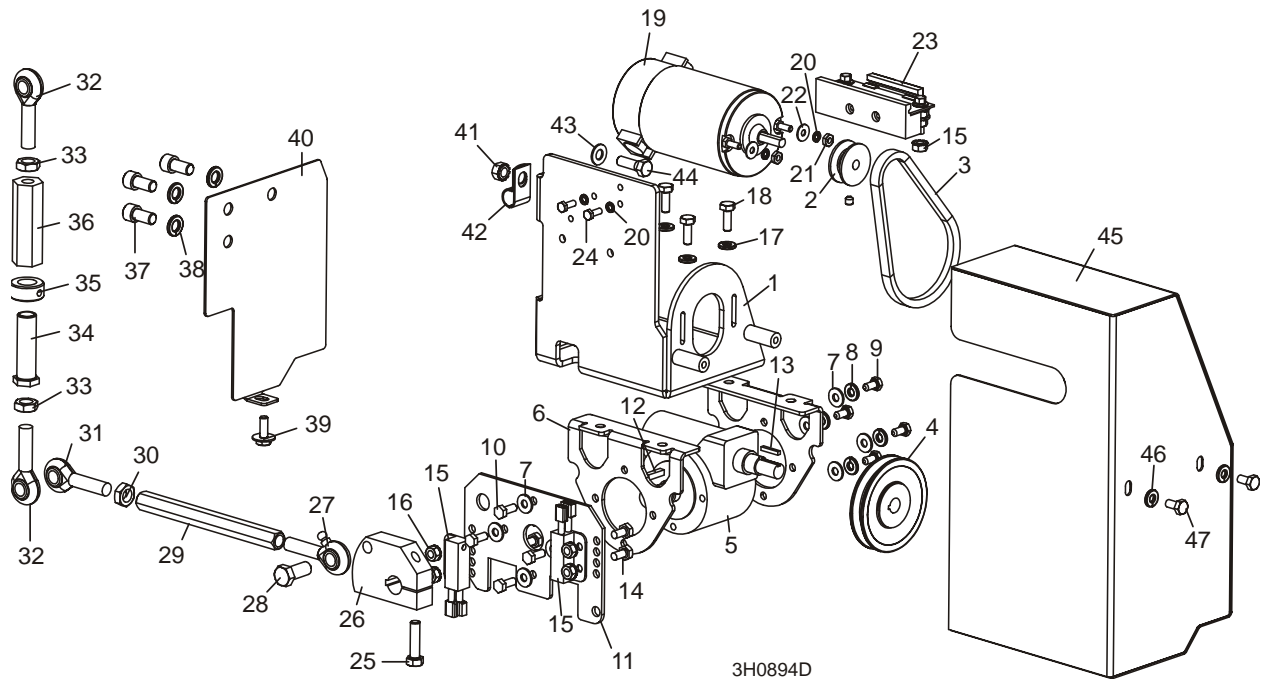
Metal debris buildup causing sensor to open

Clear metal debris from sensors.

## SECTION 4 REPLACEMENT PARTS

### 4.1 Autoclutch Assembly (Solid State)

*Rev. A.08+*



REF	DESCRIPTION (◆ Indicates Parts Available in Assemblies Only)	PART #	QTY.
	<b>CLUTCH ASSEMBLY, AUTOMATIC</b>	<a href="#">024620</a>	1
1	Mount Weldment, Autoclutch Gearbox	<a href="#">016216</a>	1
2	Sheave, 1.42 x .32	<a href="#">015074</a>	1
3	Belt, 3L140	<a href="#">016219</a>	1
4	Sheave, 0K30 x 1/2	<a href="#">015075</a>	1
	Gearbox Assembly, Autoclutch	<a href="#">036786</a>	1
5	Gearbox, 61:1 512 Reducer	<a href="#">036764</a>	1
6	Mount Weldment, Autoclutch Gearbox	<a href="#">036807</a>	2
7	Washer, 1/4" SAE Flat	<a href="#">F05011-11</a>	8
8	Washer, 1/4" Split Lock	<a href="#">F05011-14</a>	4
9	Bolt, M6 x 12 Full Thread Grade 8.8 Hex Head	<a href="#">F05005-99</a>	4
10	Bolt, M6 x 1 x 16mm Hex Head	<a href="#">F05004-219</a>	4
11	Plate, Sensor Mount	<a href="#">036785</a>	1
12	Key, 3/16" Sq. x 3/4" Long	<a href="#">S03060</a>	1
13	Key, 1/8" Sq. x 3/4" Long	<a href="#">036803</a>	1
14	Bolt, 1/4-20 x 1/2" Hex Head	<a href="#">F05005-15</a>	4
15	Sensor Assembly, Proximity Magnetic	<a href="#">024627</a>	2
16	Nut, 1/4-20 Self Locking	<a href="#">F05010-9</a>	5

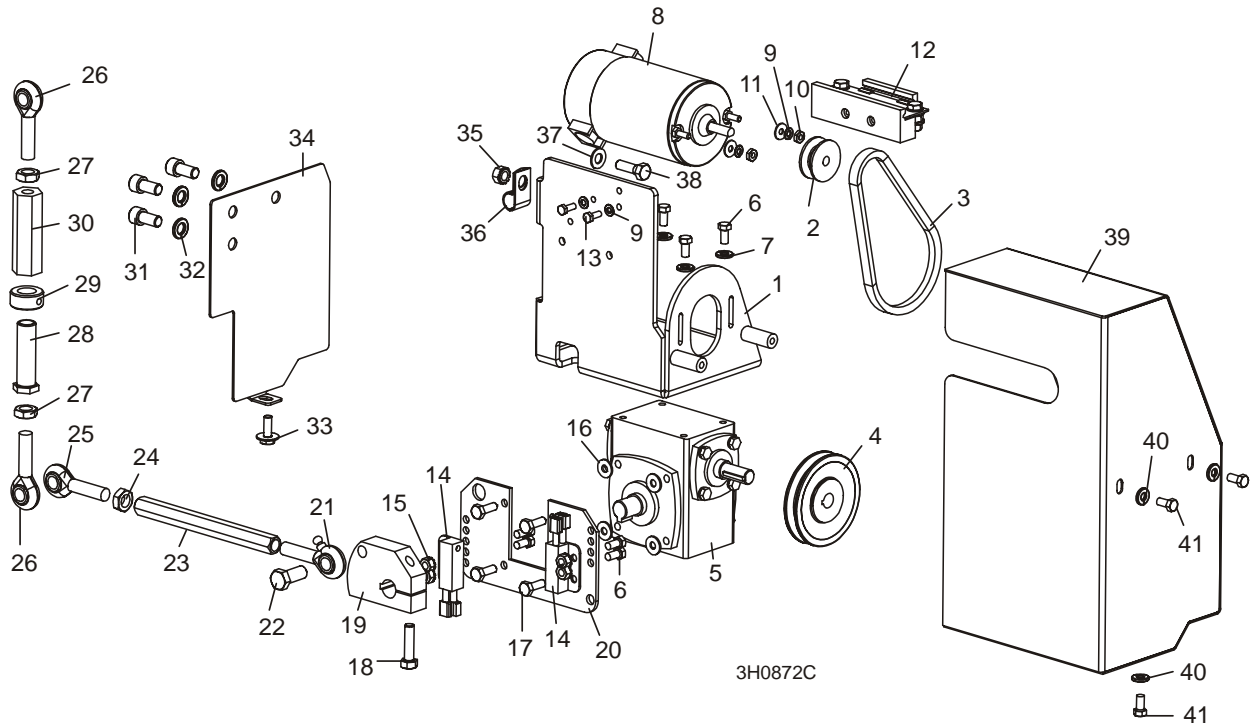
## 4

**Replacement Parts***Autoclutch Assembly (Solid State)*

17	Washer, 1/4" Split Lock	<a href="#">F05011-14</a>	4	
18	Bolt, 1/4-20 x 3/4" Hex Head Grade 5	<a href="#">F05005-123</a>	4	
19	Motor Assembly, Autoclutch Replacement	<a href="#">016021</a>	1	
	Brush Kit, Autoclutch Leeson Motor External	<a href="#">034002</a>	1	
20	Washer, #10 Split Lock	<a href="#">F05011-20</a>	4	
21	Nut, #10-32 Hex	<a href="#">F05010-27</a>	2	
22	Washer, #10 SAE Flat	<a href="#">F05011-18</a>	2	
23	Mosfet Assembly	<a href="#">024618</a>	1	
24	Screw, 10-24 x 1/2" Unslotted Hex Head Stainless Steel Machine	<a href="#">F05004-27</a>	2	
25	Bolt, 5/16-24 x 1 1/4" Hex Head	<a href="#">F05006-21</a>	1	
26	Cam, Auto Clutch	016323	1	◆
27	Rod End, R/H w/Grease Zerk	<a href="#">015254</a>	1	
28	Screw, 7/16-20 x 1" Hex Head Grade 5	<a href="#">F05007-151</a>	1	
29	Rod, Clutch Engagement	<a href="#">015062</a>	1	
30	Nut, 7/16-20 Jam	<a href="#">F05010-38</a>	1	
31	Rod End, 7/16-20 RH Male	<a href="#">P11579</a>	1	
32	<b>ROD END, 7/16-20 RIGHT-HAND MALE</b>	<a href="#">P11579</a>	2	
33	<b>NUT, 7/16-20 HEX JAM</b>	<a href="#">F05010-38</a>	2	
	<b>ROD KIT, AUTOCLUTCH INNER/OUTER LINK</b>	<a href="#">016325</a>	1	
34	Rod, Autoclutch Inner Link	015070	1	◆
35	Collar, 5/8" ID Lock Kubota Diesel	<a href="#">P05035</a>	1	
36	Rod, Autoclutch Outer Link	015071	1	◆
37	<b>BOLT, 3/8-16 X 3/4" SOCKET HEAD</b>	<a href="#">F05005-104</a>	3	
38	<b>WASHER, 3/8" SPLIT</b>	<a href="#">F05011-4</a>	3	
39	<b>BOLT, 1/4-20 X 3/4" HEX HEAD W/CONICAL WASHER</b>	<a href="#">F05005-134</a>	1	
40	<b>GUARD, AUTOCLUTCH BACK</b>	<a href="#">016232</a>	1	
41	<b>NUT, 5/16-18 SELF-LOCKING HEX</b>	<a href="#">F05010-20</a>	1	
42	<b>CLAMP, 1/2" COATED EMT</b>	<a href="#">P07584</a>	1	
43	<b>WASHER, 5/16" SAE FLAT</b>	<a href="#">F05011-17</a>	1	
44	<b>BOLT, 5/16-18 X 1" HEX HEAD</b>	<a href="#">F05006-1</a>	1	
45	<b>GUARD WELDMENT, AUTOCLUTCH</b>	<a href="#">015735</a>	1	
46	<b>WASHER, 1/4" SPLIT LOCK</b>	<a href="#">F05011-14</a>	2	
47	<b>BOLT, 1/4-20 X 1/2" HEX HEAD</b>	<a href="#">F05005-15</a>	2	

## 4.2 Autoclutch Assembly (Solid State)

*Rev. A.00 - A.07*



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	<b>CLUTCH ASSEMBLY, AUTOMATIC</b>	<a href="#">024620</a>	1	
1	Mount Weldment, Autoclutch Gearbox	<a href="#">016216</a>	1	
2	Sheave, 1.42 x .32	<a href="#">015074</a>	1	
3	Belt, 3L140	<a href="#">016219</a>	1	
4	Sheave, 0K30 x 1/2	<a href="#">015075</a>	1	
5	Gearbox, 60:1 I034	015067 <sup>1</sup>	1	◆
6	Bolt, 1/4-20 x 1/2" Hex Head	<a href="#">F05005-15</a>	8	
7	Washer, 1/4" Split Lock	<a href="#">F05011-14</a>	4	
8	Motor Assembly, Autoclutch Replacement	<a href="#">016021</a> <sup>2</sup>	1	
	Brush Kit, Autoclutch Leeson Motor External	<a href="#">034002</a> <sup>3</sup>	1	
	Brush Kit, Autoclutch Owosso Motor External	<a href="#">A12198</a> <sup>3</sup>	1	
9	Washer, #10 Split Lock	<a href="#">F05011-20</a>	2	
10	Nut, #10-32 Hex	<a href="#">F05010-27</a>	2	
11	Washer, #10 SAE Flat	<a href="#">F05011-18</a> <sup>4</sup>	2	
12	Mosfet Assembly	<a href="#">024618</a>	1	
13	Screw, 10-24 x 1/2" Unslotted Hex Head Stainless Steel Machine	<a href="#">F05004-27</a>	2	
14	Sensor Assembly, Proximity Magnetic	<a href="#">024627</a>	2	
15	Nut, 1/4-20 Self Locking	<a href="#">F05010-9</a>	4	

## 4

**Replacement Parts***Autoclutch Assembly (Solid State)*

16	Washer, 1/4" SAE Flat	<a href="#">F05011-11</a>	4	
17	Bolt, 1/4-20 x 3/4" Full Thread Hex Head Cap	<a href="#">F05005-1</a>	4	
18	Bolt, 5/16-24 x 1 1/4" Hex Head	<a href="#">F05006-21</a>	1	
	Cam Kit, Autoclutch Retro w/Bracket	<a href="#">046567<sup>5</sup></a>	1	
19	Cam, Auto Clutch	016323	1	◆
20	Plate, Sensor Mounting	016324	1	◆
21	Rod End, R/H w/Grease Zerk	<a href="#">015254</a>	1	
22	Screw, 7/16-20 x 1" Hex Head Grade 5	<a href="#">F05007-151<sup>6</sup></a>	1	
23	Rod, Clutch Engagement	<a href="#">015062</a>	1	
24	Nut, 7/16-20 Jam	<a href="#">F05010-38</a>	1	
25	Rod End, 7/16-20 RH Male	<a href="#">P11579</a>	1	
26	<b>ROD END, 7/16-20 RIGHT-HAND MALE</b>	<a href="#">P11579</a>	2	
27	<b>NUT, 7/16-20 HEX JAM</b>	<a href="#">F05010-38</a>	2	
	<b>ROD KIT, AUTOCLUTCH INNER/OUTER LINK</b>	<a href="#">016325</a>	1	
28	Rod, Autoclutch Inner Link	015070	1	◆
29	Collar, 5/8" ID Lock Kubota Diesel	<a href="#">P05035<sup>7</sup></a>	1	
30	Rod, Autoclutch Outer Link	015071	1	◆
31	<b>BOLT, 3/8-16 X 3/4" SOCKET HEAD</b>	<a href="#">F05005-104</a>	3	
32	<b>WASHER, 3/8" SPLIT</b>	<a href="#">F05011-4</a>	3	
33	<b>BOLT, 1/4-20 X 3/4" HEX HEAD W/CONICAL WASHER</b>	<a href="#">F05005-134</a>	1	
34	<b>GUARD, AUTOCLUTCH BACK</b>	<a href="#">016232</a>	1	
35	<b>NUT, 5/16-18 SELF-LOCKING HEX</b>	<a href="#">F05010-20</a>	1	
36	<b>CLAMP, 1/2" COATED EMT</b>	<a href="#">P07584</a>	1	
37	<b>WASHER, 5/16" SAE FLAT</b>	<a href="#">F05011-17</a>	1	
38	<b>BOLT, 5/16-18 X 1" HEX HEAD</b>	<a href="#">F05006-1</a>	1	
39	<b>GUARD WELDMENT, AUTOCLUTCH</b>	<a href="#">015735</a>	1	
40	<b>WASHER, 1/4" SPLIT LOCK</b>	<a href="#">F05011-14<sup>8</sup></a>	2	
41	<b>BOLT, 1/4-20 X 1/2" HEX HEAD</b>	<a href="#">F05005-15<sup>8</sup></a>	2	

<sup>1</sup> Gearbox 015067 replaced Rev. A.08 to improve durability. Use Gearbox Assembly 036786 to retrofit previous revisions ([See Section 4.1](#)).

<sup>2</sup> Motor kit revised 10/01. Leeson motor 016706 replaces Leeson motor 034001 (12/00) and Owosso motor P12093 originally supplied.

<sup>3</sup> Use 034002 Brush Kit for Leeson motors supplied after 12/00 (Rev. A.04). Use A12198 Brush Kit for Owosso motor originally supplied prior to Rev. A.04.

<sup>4</sup> Flat washers added Rev. A.06 to make adjustment of motor belt easier.

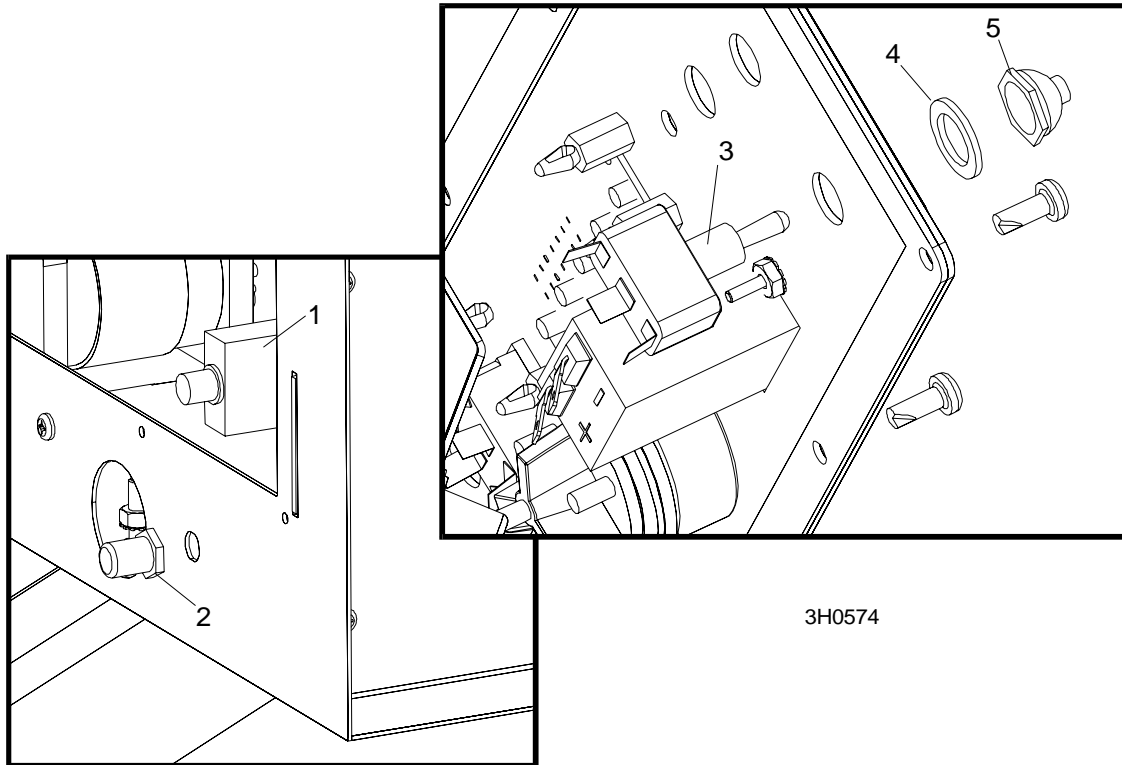
<sup>5</sup> Bracket revised to increase sensor adjustment. Cam revised to accommodate new bracket. Use kit 046567 to replace either part.

<sup>6</sup> Hex head bolt F05007-151 actually used in assembly - not socket head bolt F05007-117.

<sup>7</sup> Lock collar added Rev. A.02. Collar is used as spacer to provide increased range of adjustment on Kubota diesel sawmills ONLY.

<sup>8</sup> Bottom slot in guard, bolt and washer removed (Rev. A.07).

### 4.3 Autoclutch Control Parts



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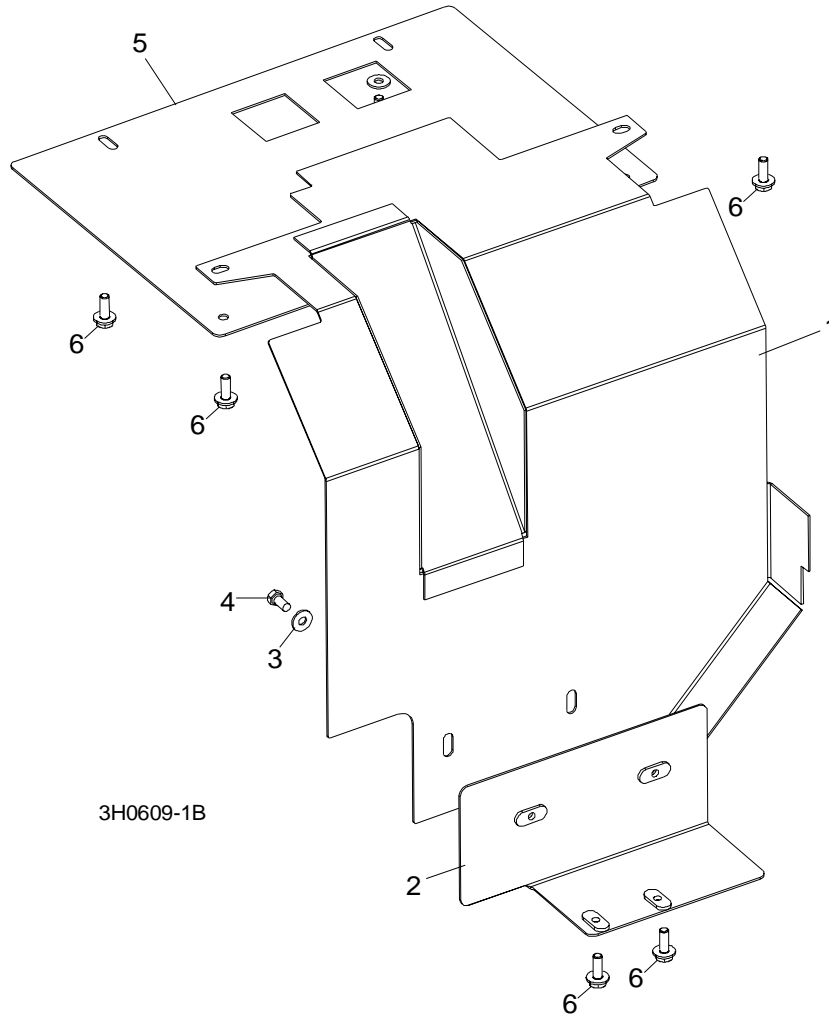
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.
1	BREAKER, 30A MANUAL RESET PANEL MOUNT	<a href="#">024246</a>	1
2	BOOT, CIRCUIT BREAKER	<a href="#">021253</a>	1
3	SWITCH, ON/ON TOGGLE SPDT	<a href="#">051346<sup>1</sup></a>	1
4	WASHER, 1/2" ID X 3/4" OD X 1/16" THICK NYLON	<a href="#">P05251-1</a>	1
5	BOOT, TOGGLE SWITCH	<a href="#">P02575</a>	1

<sup>1</sup>051346 On/On Toggle Switch replaces 015665 On/Off/On Toggle Switch supplied before 8/03. Center OFF position not required for Autoclutch operation.

# 4 Replacement Parts

## Belt Guards

### 4.4 Belt Guards



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.
	<b>GUARD ASSEMBLY, AUTOCLUTCH LEVER</b>	<a href="#">015248</a>	1
1	Guard Weldment, Automatic Clutch	<a href="#">015656</a>	1
2	Mount Weldment, Clutch Guard	<a href="#">015678</a>	1
3	Washer, 1/4" SAE Flat	<a href="#">F05011-11</a>	2
4	Bolt, 1/4-20 x 1/2" Hex Head	<a href="#">F05005-15</a>	2
5	<b>PLATE, LOWER BELT AUXILIARY GUARD</b>	<a href="#">016089</a> <sup>1</sup>	1
6	<b>BOLT, 1/4-20 X 3/4" HEX HEAD WITH CONICAL WASHER</b>	<a href="#">F05005-134</a>	6

<sup>1</sup> Auxiliary plate required for Non-Super models without board return mechanism.



## SECTION 5 ELECTRICAL INFORMATON

### 5.1 Electrical Components

Component	Manufacturer Part No.	Manufacturer	Wood-Mizer Part No.	Description
<b>CB9</b>	1600-037-030-009	Mech. Prod.	024246	Breaker, 30A Manual Reset Panel Mount
<b>D6</b>	024629	Wood-Mizer	024629	Diode Assy, Autoclutch
<b>M5</b>	S.I. 2917-A	Leeson <sup>1</sup>	016021	Motor, 12V 1/3HP External Brush
<b>MOD1</b>	024618	Wood-Mizer	024618	Module Assembly, Autoclutch Mosfet
<b>S5</b>	CH-55015	Indy Wire	051346 <sup>2</sup>	Switch, On/On Toggle SPDT
<b>S6, S7</b>	024627	Wood-Mizer	024627	Sensor Assembly, Proximity Magnetic

<sup>1</sup> Replaces Owosso motor #PV-28147Q originally supplied prior to Rev. A.04 (12/00).

<sup>2</sup> 051346 On/On Toggle Switch replaces 015665 On/Off/On Toggle Switch supplied before 8/03. Center OFF position not required for Autoclutch operation.

5.2 Electrical Symbol Diagrams

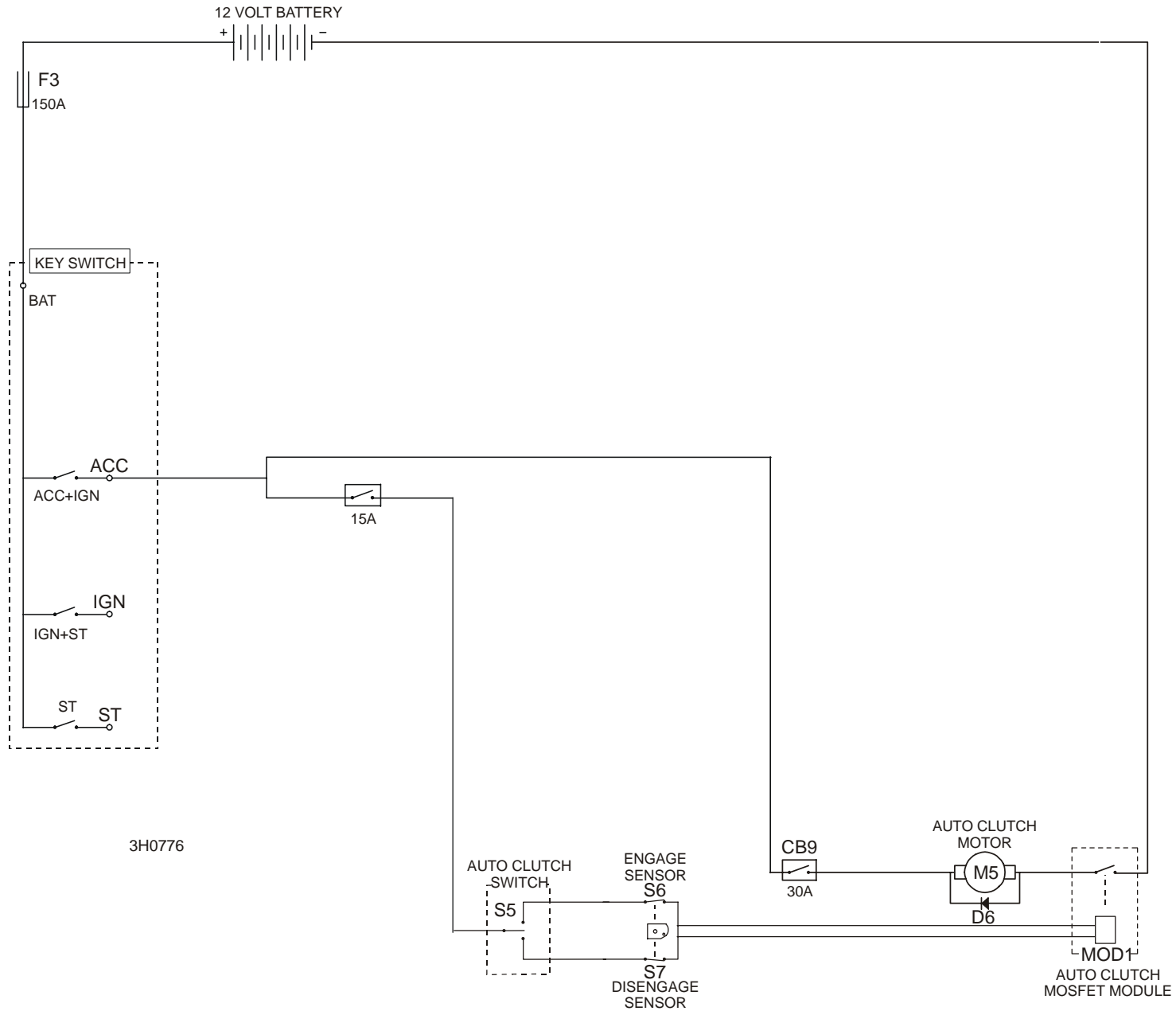


FIG. 5-1 AUTOCLUTCH SYMBOL DIAGRAM (NON-SUPER SAWMILL).

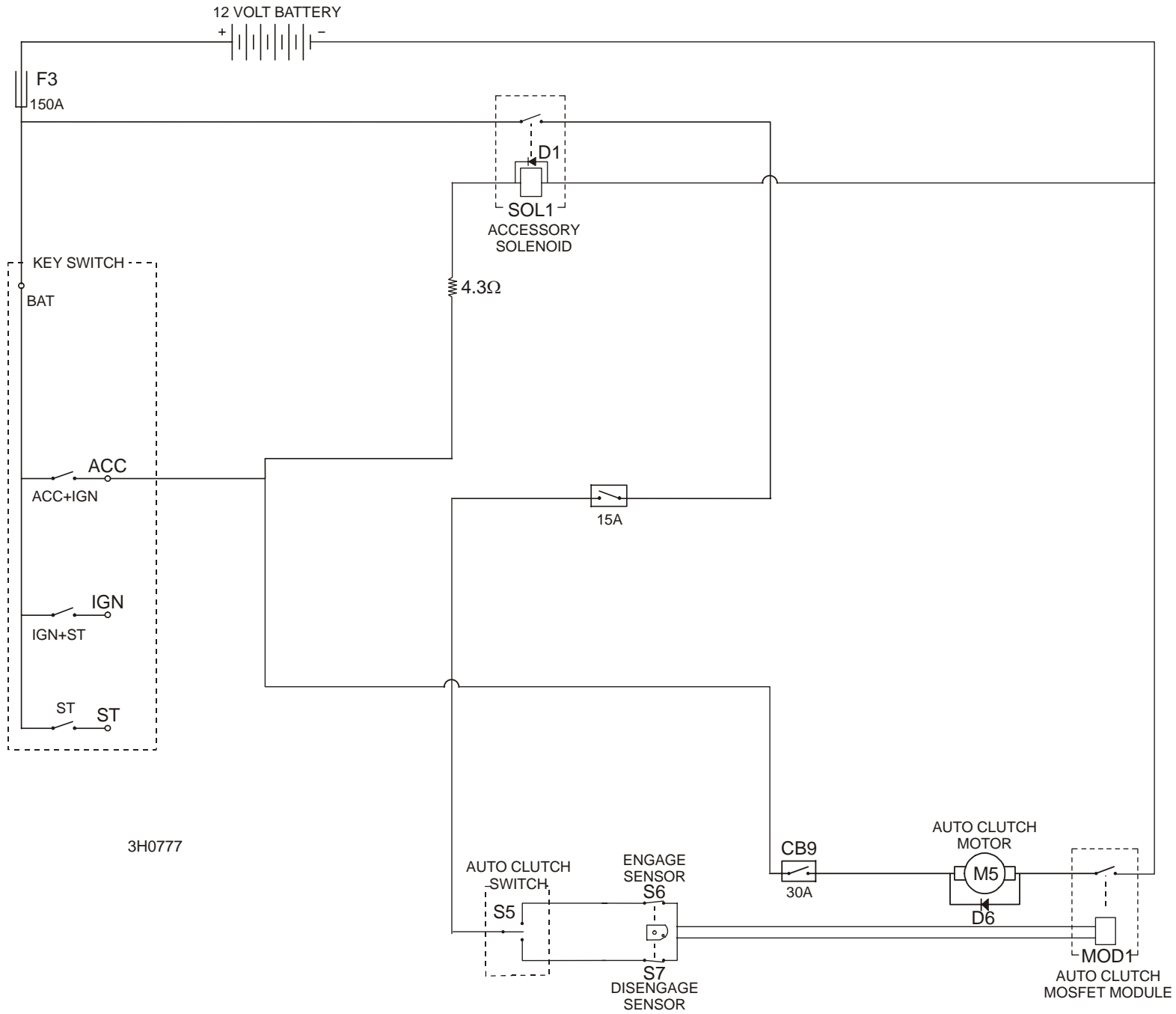


FIG. 5-1 AUTOCLUTCH SYMBOL DIAGRAM (SUPER SAWMILL).

5.3 Electrical Wiring Diagrams

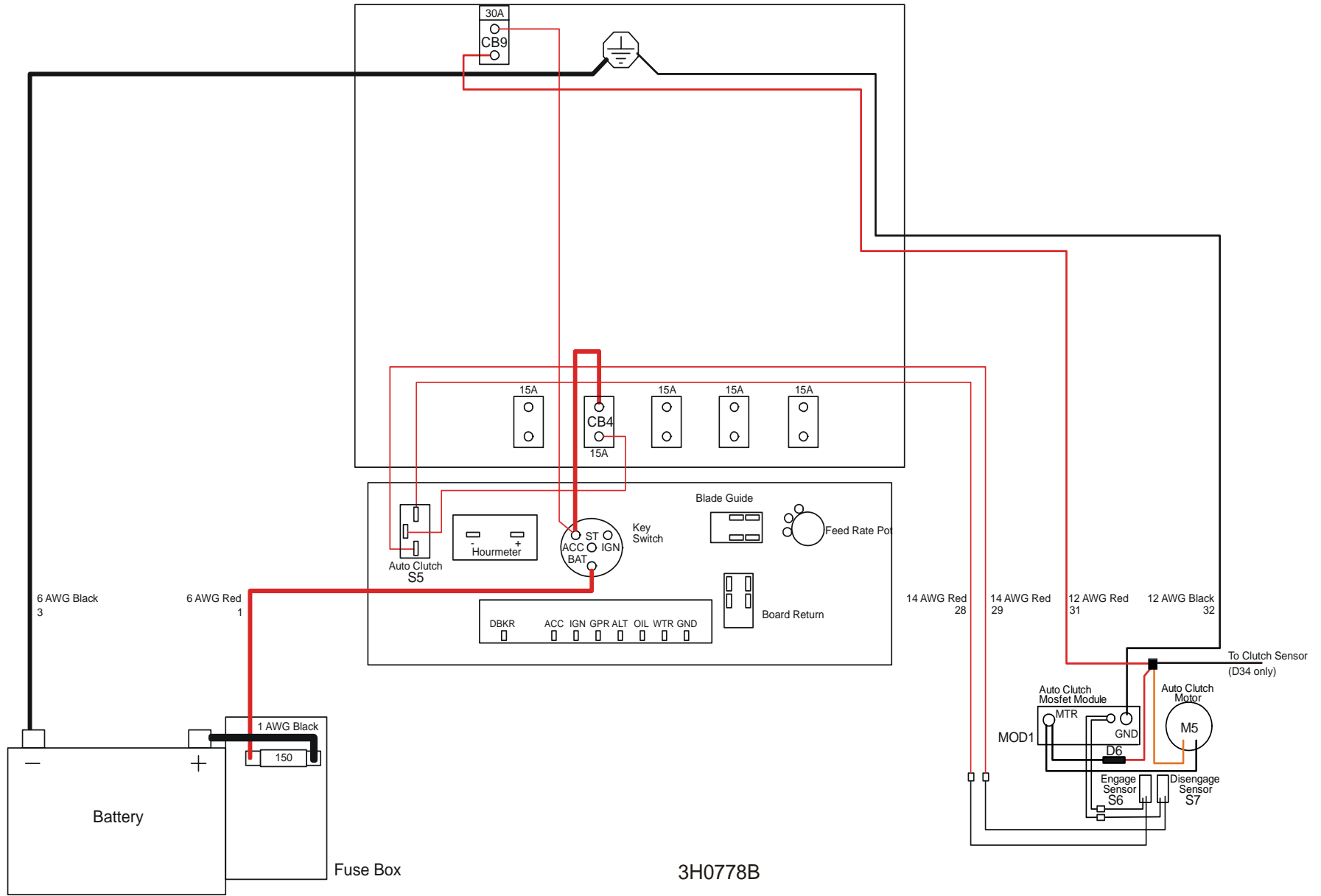


FIG. 5-2 AUTOCLUTCH WIRING DIAGRAM (NON-SUPER SAWMILL).



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