

Mechanical Autoclutch

Safety, Installation,
Operation, & Parts Manuals

024338 (Installed)	rev. A.00 - D.00
016139 (Boxed)	rev. A.00 - D.00

Safety is our #1 concern!

February 1999

Form #883



WARNING! Read and understand this manual before using this machine.

California
Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to **www.P65warnings.ca.gov**.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to **www.P65Warnings.ca.gov/wood**.

Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: woodmizer.com/patents

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SECTION 1 AUTOCLUTCH INSTALLATION

NOTE: 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.
2. Move the saw head forward or back on the frame so you will be able to easily access the clutch turnbuckle.
3. Turn the key switch to the OFF position and remove the key.
4. Remove the battery box lid and disconnect the cable from the negative battery terminal.



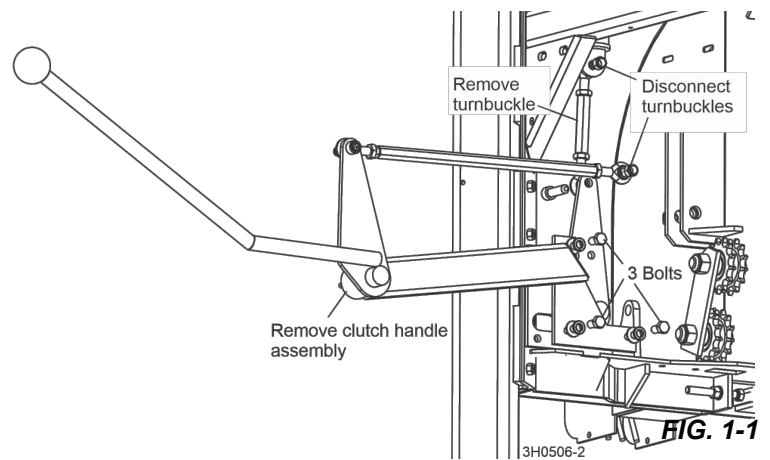
DANGER! Before performing any service to this equipment, turn the key to the OFF position, remove the key, and disconnect the cable from the negative terminal on the sawmill battery. Remove the blade from the saw head.

5. 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.

6. Remove the drive belt housing covers to access the clutch handle and turnbuckle linkage.
7. With the clutch handle disengaged (up), locate the clutch pivot plate where both the long and short turnbuckles are connected.
8. Remove the bolt and nut securing the long and short turnbuckles to the pivot plate.
9. Save the bolt and nut for installation of the Autoclutch turnbuckle.
10. Remove the bolt and nut securing the short turnbuckle to the engine/motor mount.
11. Remove the short turnbuckle assembly.
12. Save the bolt and nut for installation of the Autoclutch turnbuckle.
13. Remove the three bolts securing the clutch handle to the saw head.
14. Remove the clutch handle assembly.



1.2 Autoclutch Assembly Installation

1. Install the provided collar spacer to the autoclutch turnbuckle for the mills equipped with a Kubota, Caterpillar, Yanmar diesel engine or G35 (G38) Kohler gas engine,
2. Loosen the jam nuts and turn the inner and outer links until they separate.
3. Install the spacer collar to the inner link.

4. Reassemble the inner and outer links and tighten the jam nuts. **See Fig. 1-2.**
5. Install the supplied short turnbuckle assembly to the engine/motor mount using the previously removed bolt and nut.
6. Position the turnbuckle so the end with two hexes is on the bottom. **See Fig. 1-3.**

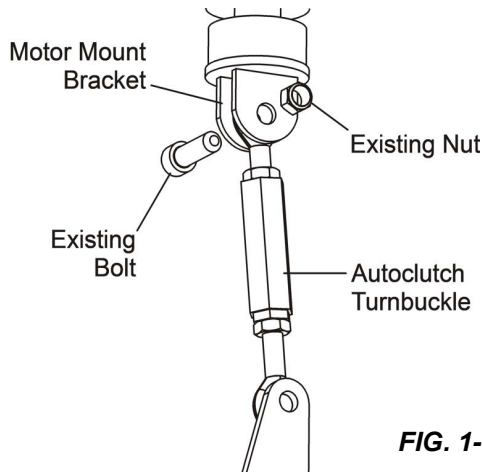


FIG. 1-3

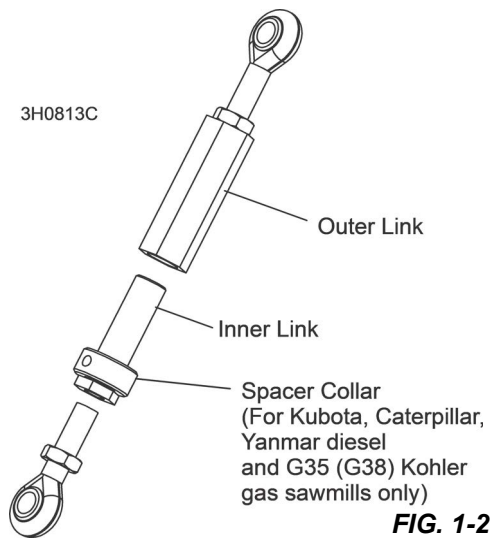


FIG. 1-2

INSTALL THE AUTOCLUTCH DRIVE ASSEMBLY TO THE SAWMILL SAW HEAD:

1. Remove the three socket head bolts and lock washers from the back of the autoclutch drive assembly.
2. Place the rear guard (**Rev. D Only**) over the three slotted holes located under the engine/motor mount plate.
3. Use the three socket head bolts and lock washers to install the autoclutch assembly to the saw head. **See Fig. 1-4.**

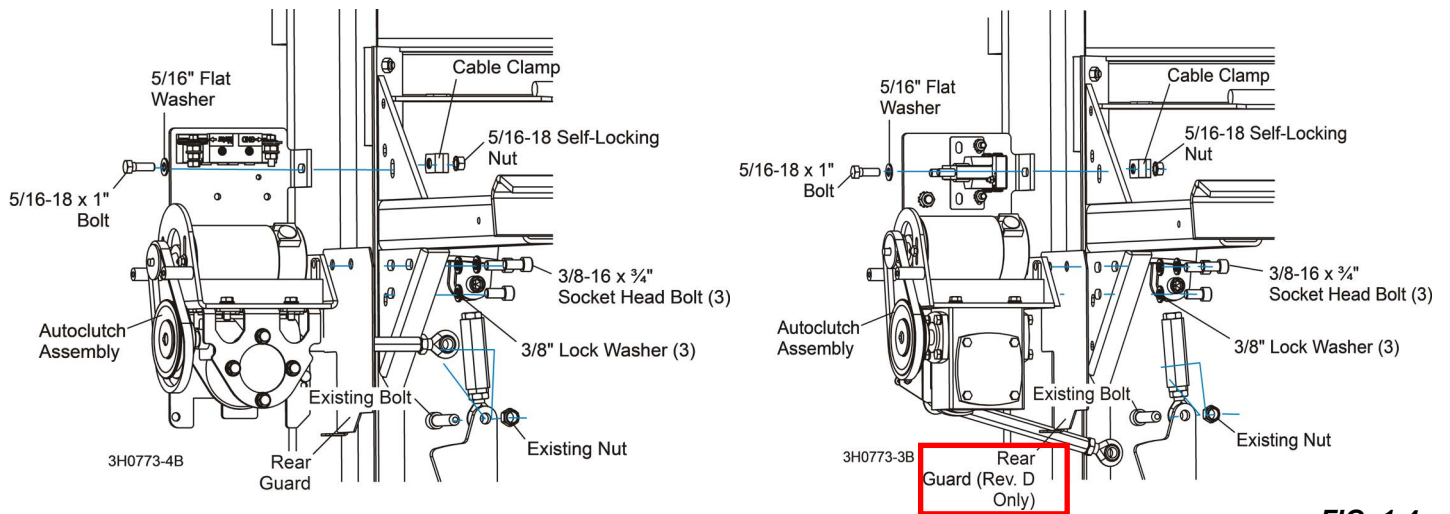


FIG. 1-4

HYDRO SAWMILLS ONLY:

- 1). Remove the three hex head bolts and lock washers from the back of the autoclutch drive assembly.
- 2). Remove the three existing mounting bolts, washers and nuts from the rear of the hydro pump bracket.
- 3). Place the autclutch drive assembly against the pump bracket, aligning the three mounting holes.

- 4). Use the three hex head bolts and lock washers to secure the autoclutch assembly to the saw head.

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.
2. Lift the panel out and flip around to access the back side (leave all wires attached).
3. Locate the hole for the autoclutch switch .
4. 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.
5. Be sure the hex nut on the toggle switch is threaded all the way down against the body of the switch.
6. Install the toggle switch through the panel hole.
7. Position the switch body so the switch operates up and down.
8. 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.

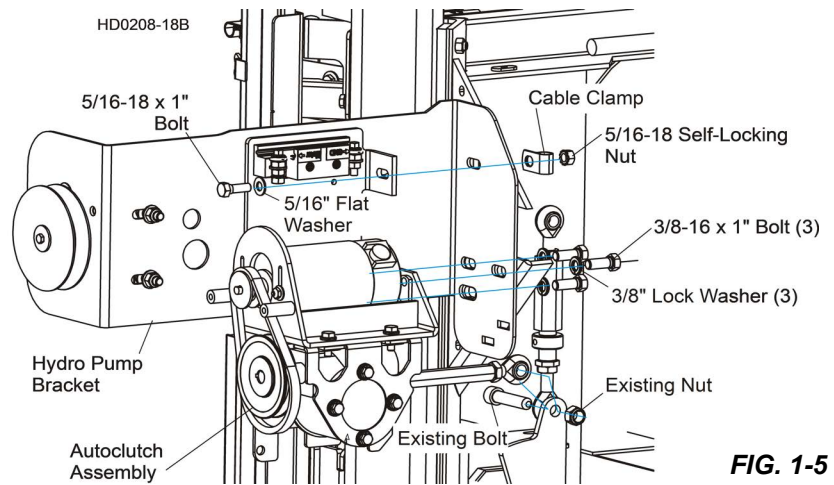


FIG. 1-5

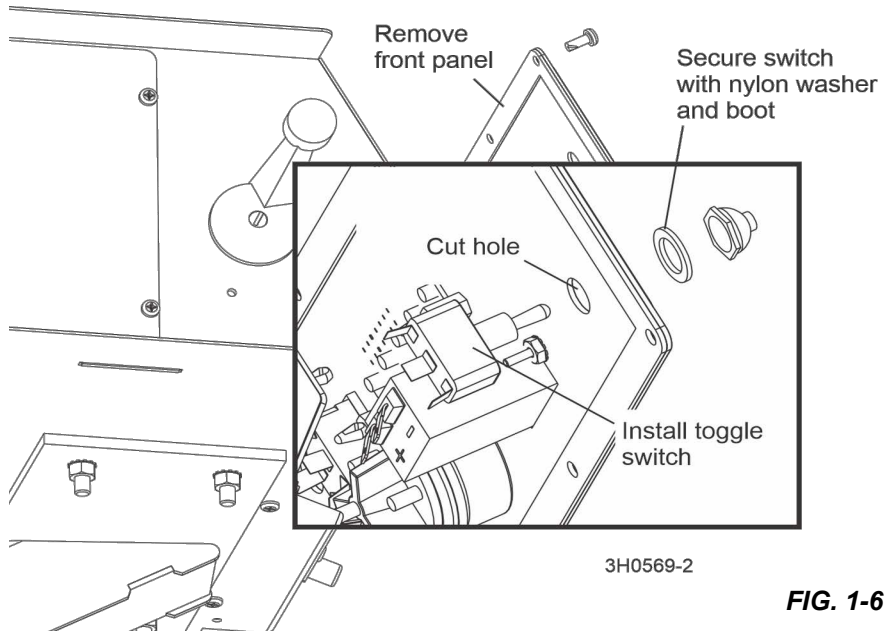


FIG. 1-6

9. Remove the eight screws securing the rear panel to the sawmill control box.
10. Lift the panel out and set on top of the control box, leaving all wires attached.
11. Locate the 3/8" bolt and nut in the rear of the control box toward the right side.
12. Remove the bolt and nut from the control box.
13. 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.
14. Secure the breaker to the control box with the boot provided.
15. Peel the back from the provided circuit breaker label and place the decal on the control box under the circuit breaker.

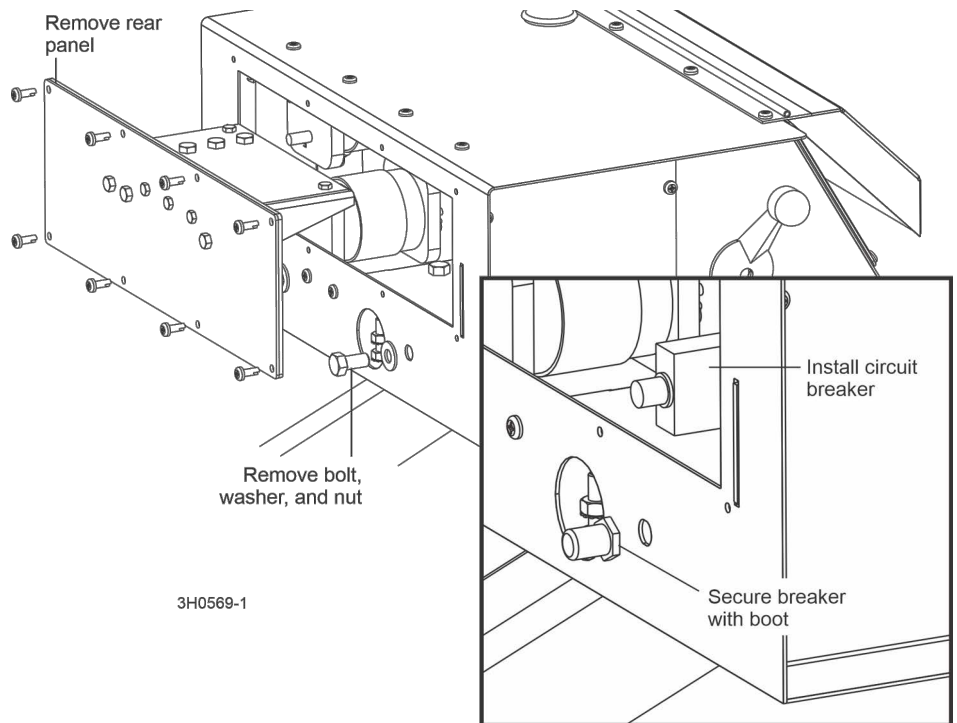


FIG. 1-7

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.

NOTICE 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](#)).

1998 and newer model sawmills are pre-wired for the autoclutch option.

1. 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.
2. Remove any wire ties, tape or cable clamps securing the harness in its storage location.
3. 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.

4. 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.

5. Pull back the harness conduit to expose the four wires.
6. Connect the 12 gauge black wire (#32) to the black autoclutch motor wire.
7. Slide the supplied piece of rubber tube over one of the wires and overlap the terminals on both wires.
8. Fasten the wire terminals together with the #10-24 x 3/8" screw and lock nut provided.
9. Slide the rubber tube over the terminal connection and wrap with electrical tape.
10. Pull back the harness conduit to expose the four wires.
11. Connect the 12 gauge black wire (#32) to the ground terminal (GND) on the autoclutch mosfet module.

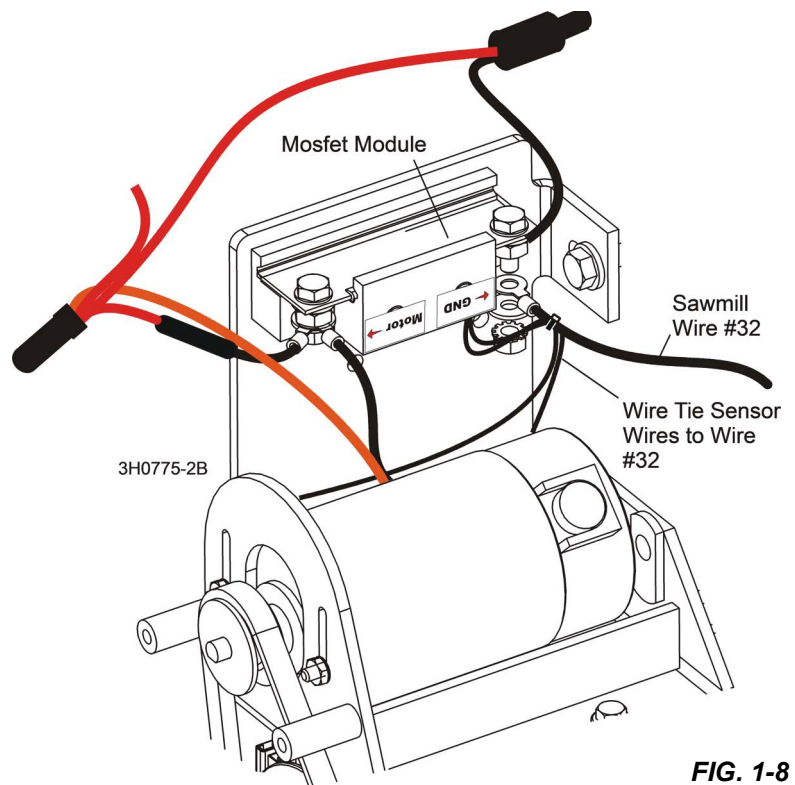


FIG. 1-8

12. Remove the nut on the ground terminal and slide the wire ring terminal onto the stud.
13. Replace the ground terminal nut.
14. Be sure the ring terminal body does not contact any other surfaces.
15. **NOTE:** 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.
16. Connect the 12 gauge red wire (#31) to the bottom terminal of the autoclutch solenoid. Remove the nut from the solenoid terminal and slide the wire ring terminal onto the stud.
17. Replace the solenoid terminal nut.
18. Connect one of the 14 gauge red wires (#28) to the red wire from the autoclutch engage switch.

These wires have quick connects which simply snap together.

19. Connect the other 14 gauge red wire (#29) to the red wire from the autoclutch disengage switch in the same manner. In the control box, locate the harness of four wires (#28, 29, 31, & 32).
20. Remove any wire ties, tape, or cable clamps securing the harness in its storage location.
21. 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.

22. Connect the 14 gauge red wire (#28) to the bottom terminal of the autoclutch toggle switch.
23. Slide the wire terminal onto the switch terminal tab.
24. Connect the other 14 gauge red wire (#29) to the top terminal of the autoclutch toggle switch in the same manner.
25. 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.

26. Remove the nut from the front circuit breaker terminal stud (closest to the front of the control box).

27. Slide the wire ring terminal onto the circuit breaker terminal stud and replace the nut.
28. Be sure to maintain all other wire connections on the circuit breaker terminal.
29. 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.
30. Slide the wire connector onto the circuit breaker tab.

31. Connect the pre-installed red wire from the top terminal of the circuit breaker to the Accessory post on the key switch.
32. Remove the ACC terminal nut, slide the wire ring terminal over the key switch terminal and replace the nut.
33. Be sure to maintain all other wire connections on the key switch terminal.
34. 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.
35. Replace the front and rear control box panels and screws.
36. Reconnect the negative battery cable and replace the battery box cover.
37. Place the key in the key switch and turn to the "ACC" position.
38. Continue to the next section for autoclutch adjustment procedure.

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).
3. If adjustment is needed, loosen the bottom lock nut on the autoclutch turnbuckle.
4. Tighten the drive belt by adjusting the inner or outer rod link to lengthen the turnbuckle.
5. Loosen the drive belt by adjusting the inner or outer rod link to shorten the turnbuckle.
6. Tighten the bottom lock nut to secure in place.
7. Place a straight edge between the upper and lower clutch pivot centers.
8. Make sure the middle pivot is aligned to the straight edge.
9. If it is not, adjust the autoclutch link arm.

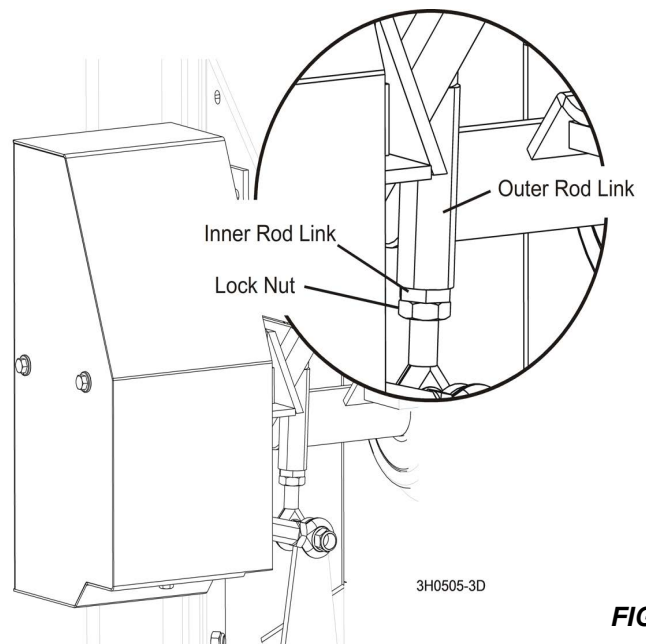


FIG. 1-9

10. To adjust, turn the autoclutch link arm to adjust the rod end in or out as required and repeat Step 3. **Prior to Rev. A.12 Only:** Disassembly of one end of the autoclutch link arm is required to adjust the arm.
11. Lower the autoclutch toggle switch until the autoclutch motor quits cycling.

The autoclutch should pivot the engine/motor mount down, disengaging the drive belt.

12. With the drive belt disengaged, recheck the autoclutch turnbuckle.
13. Measure the distance between the outer rod link the inner rod link or spacer collar.
14. Adjust the brake strap as needed (refer to your operator's manual for specific adjustment procedures).
15. If the distance is less than 1/16", tighten the brake strap.
16. If the distance is more than 1/4", loosen the brake strap.

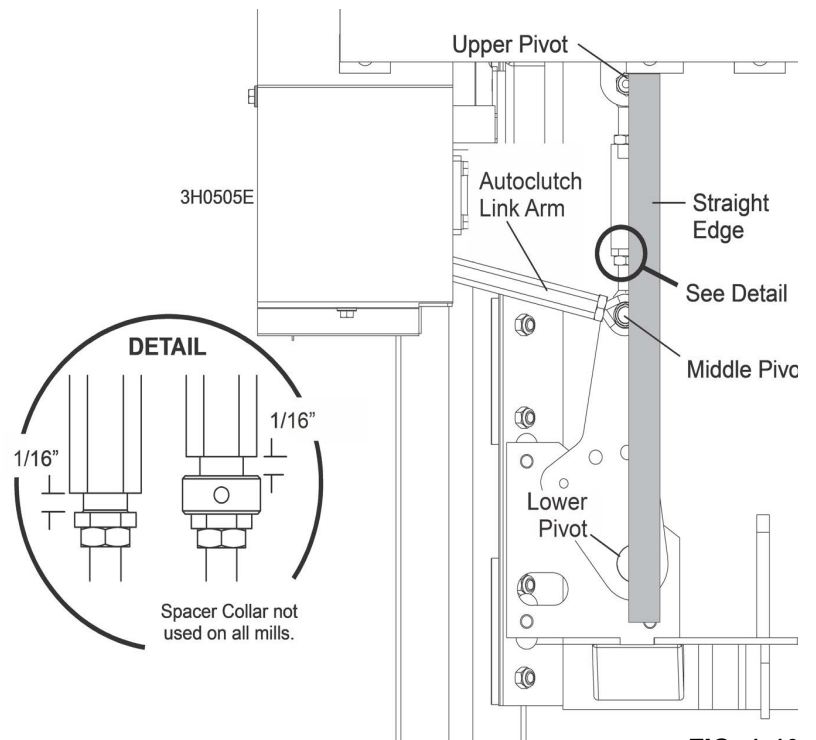


FIG. 1-10

1.6 Guard Installation

1. If not already installed, install the front and rear Autoclutch guards:

SUPER/STANDARD SAWMILL:

Use the supplied 1/4-20 x 1/2" bolts and split lock washers to secure the front guard in place.

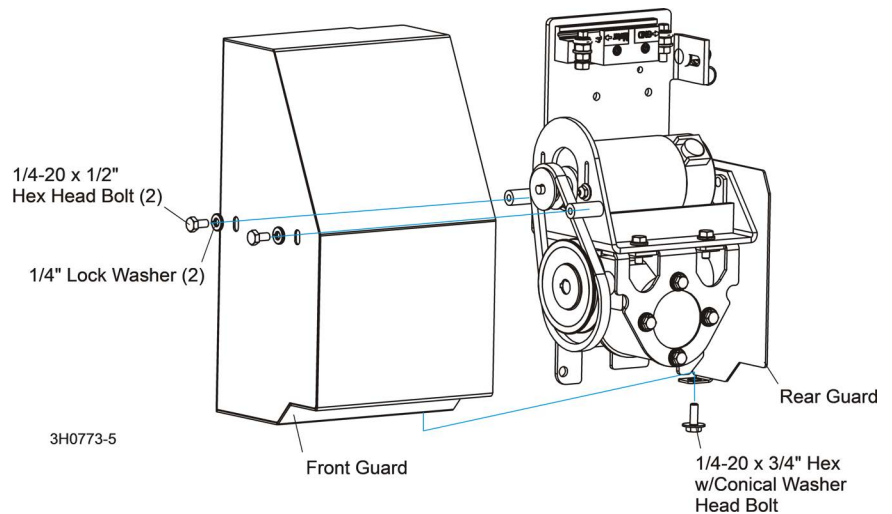


FIG. 1-11

HYDRO SAWMILL:

1. Use the supplied 1/4-20 x 1/2" bolts and split lock washers to secure the front guard in place.
2. Secure the back guard to the front guard from underneath using the supplied 1/4-20 x 3/4" bolt.
3. Secure the back guard to the hydro pump bracket using the two 1/4-20 x 3/4" carriage head bolts, lock washers and lock nuts provided.
4. Replace all saw head covers.
5. Use the provided lower belt guard assembly to replace the original lower guard.
6. Assemble the lower belt guard to the mount with the 1/4-20 x 1/2" hex head bolts and flat washers provided.

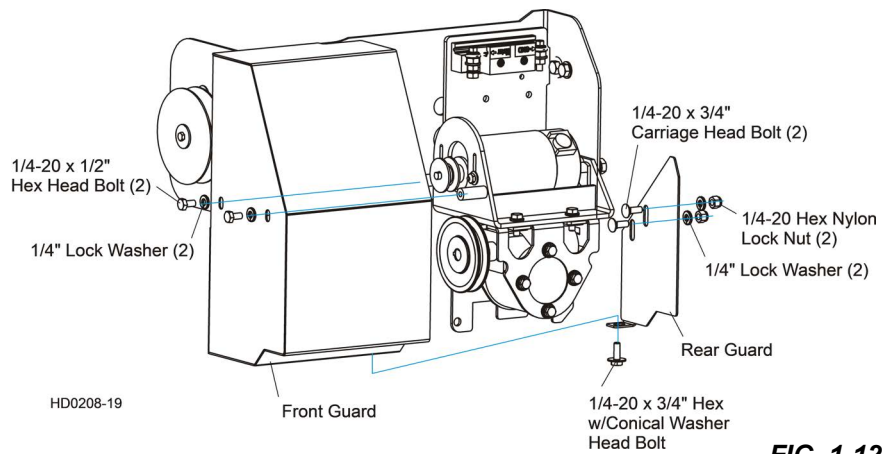
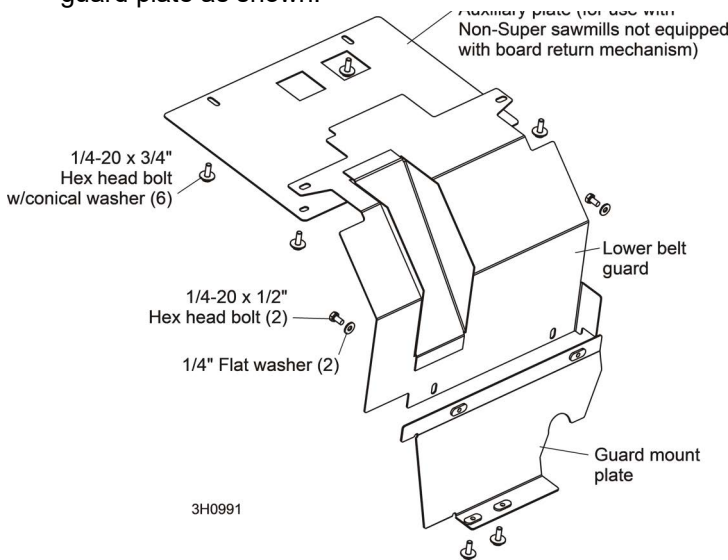


FIG. 1-12

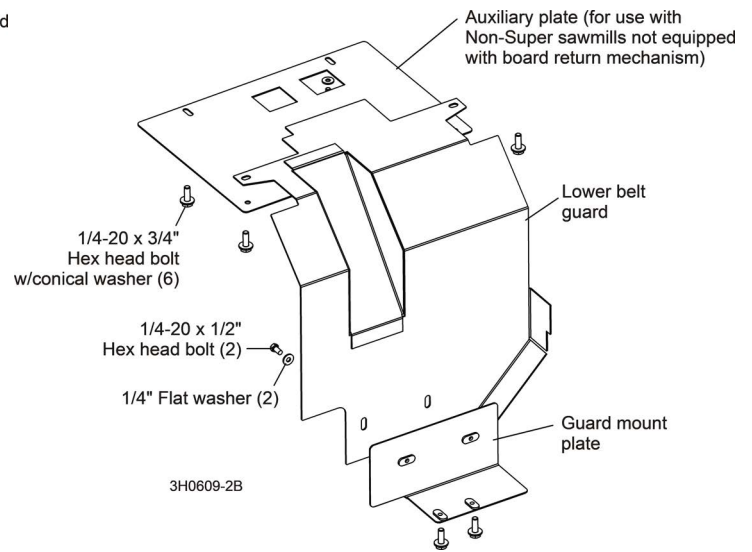
7. Install the guard assembly to the sawmill using six 1/4-20 x 3/4" hex head bolts with conical washers.
8. If your sawmill is not equipped with a board return mechanism mounted to the saw head, install the provided auxiliary guard plate as shown.



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



AUTOCLUTCH REV. A.11+



AUTOCLUTCH REV. A.00-A.10

FIG. 1-13

SECTION 2 OPERATION

1. Instead of pulling a handle to engage the blade, push the toggle switch on the control panel up.
2. 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.

3. Stop the blade and engage the blade brake by pushing 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. Hold the switch in position until the remote clutch motor completes its cycle.

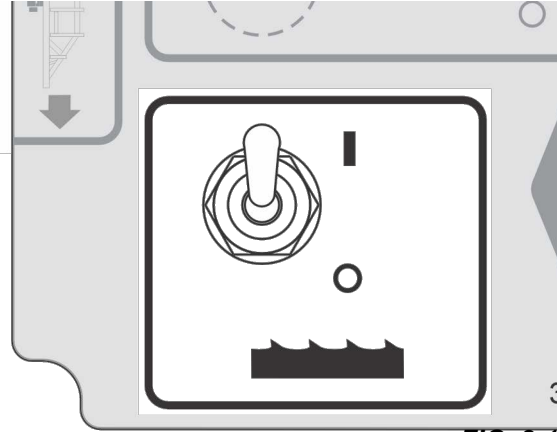


FIG. 2-1

SECTION 3 MAINTENANCE



DANGER! Disconnect and lock out power supply before performing autoclutch installation! Follow all applicable electrical codes.

Ensure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

Before performing any service to this equipment, turn the key to the OFF position, remove the key, and disconnect the battery ground terminal.

3.1 Autoclutch Belt

1. Tighten the clutch belt as necessary to prevent slippage.
2. Remove the three cover bolts and washers and remove the cover.
3. Loosen the clutch motor mounting bolts and slide the motor up to tighten the belt.
4. Inspect the belt for wear or cracks and replace as necessary.

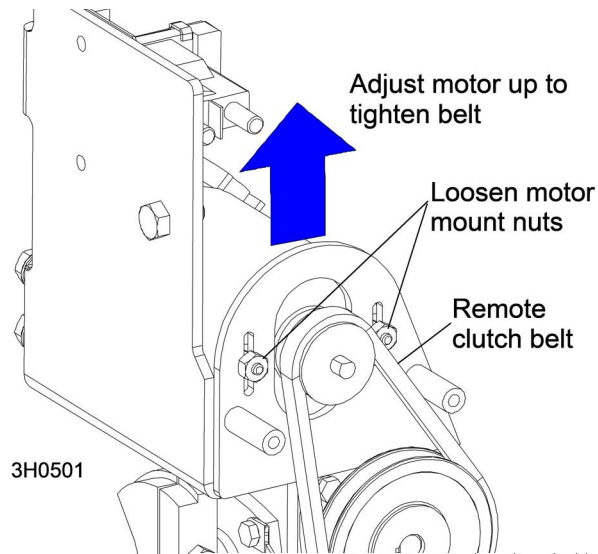


FIG. 3-1

3.2 Lubrication

Rev. A.00 - A.07 Only:

1. Check the clutch gear box oil level.
2. Remove the level plug at the rear of the gear box.

The oil level should be right at the plug hole.

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

Prior to Rev. A.12 Only:

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

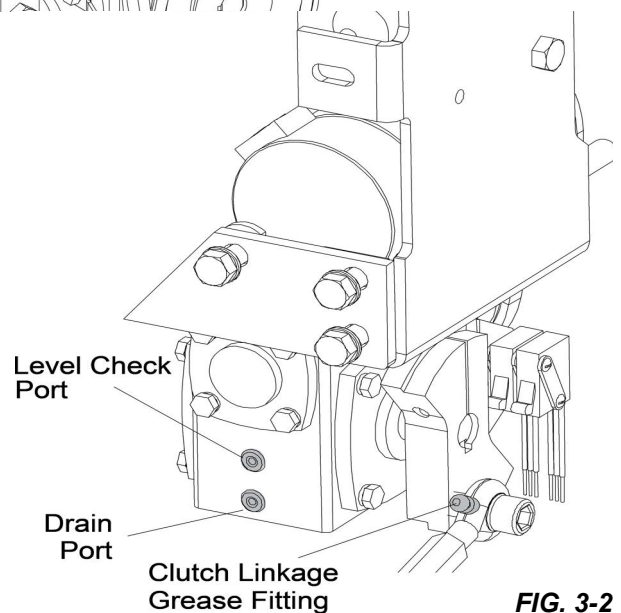


FIG. 3-2

3.3 Drive Belt Adjustment



WARNING! DO NOT adjust the engine drive belts or belt support bracket with the engine running. Doing so may result in serious injury.

Measure the belt tension with a gauge **every 50 hours** of operation.

Wood-Mizer offers a belt tension gauge (Part No. 016309) that will let you accurately measure the belt tension.

Engine /Motor	New Belt Installation/New Sawmill Operation				Subsequent Adjustment		
	Deflection Inches (mm)	Installation Force lbs. (kg)	Check After First	Acceptable Force lbs. (kg)	Then Check Every	Deflection Inches (mm)	Installation Force lbs. (kg)
G24/G25/G26/G28	7/16" (11mm)	14 lbs. (6.35kg)	20 hrs	14 lbs. (6.35kg)	50 hrs	7/16" (11mm)	14 lbs. (6.35kg)
D30/D33/D34/D35/D36	7/16" (11mm)	18 lbs. (8.16kg)	5 hrs	18 lbs. (8.16kg)	50 hrs	7/16" (11mm)	18 lbs. (8.16kg)
D40/D42/D47/D51/E25/G35/G36/G38	7/16" (11mm)	18 lbs. (8.16kg)	5 hrs	18 lbs. (8.16kg)	50 hrs	7/16" (11mm)	18 lbs. (8.16kg)

1. Remove the two belt covers located underneath the engine.
2. Loosen the jam nut at the bottom of the turnbuckle.
3. Turn the hex on the inner link rod clockwise (as viewed from the bottom) to tighten the belt, counterclockwise to loosen the belt.
4. Once you reach the maximum adjustment using the bottom jam nut/inner link rod, adjust the linkage by loosening the top jam nut and turning the turnbuckle clockwise as viewed from the top.

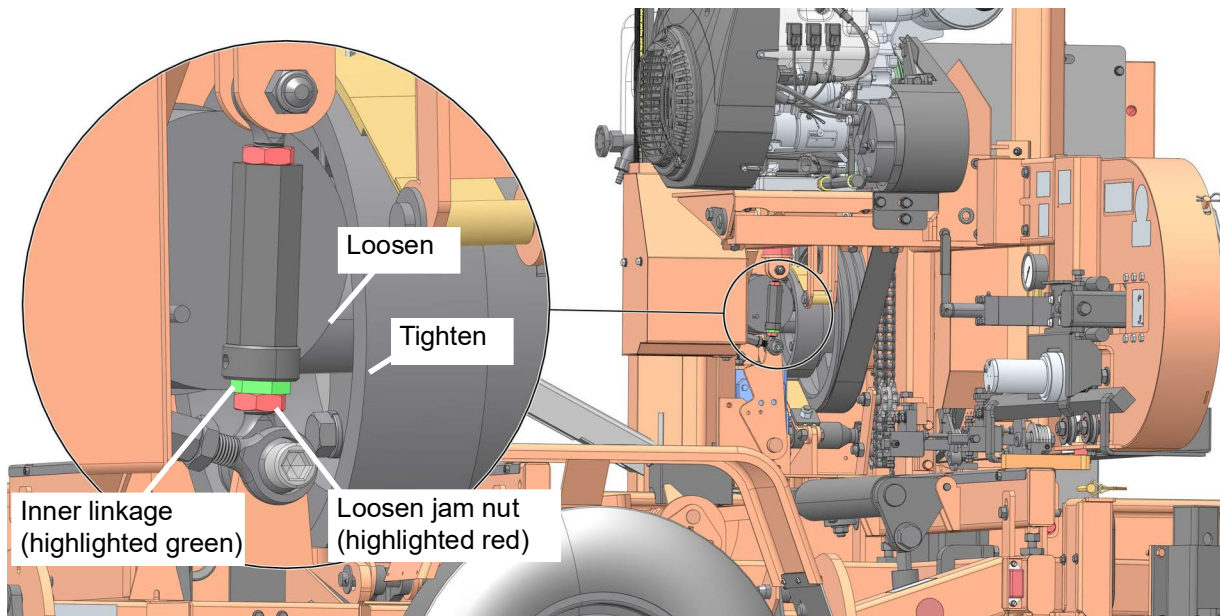


FIG. 3-3

5. Check all belts for wear; replace any damaged or worn belts **as needed**.
6. **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. Check the drive belt support after adjusting drive belt tension.

DRIVE BELT SUPPORT

1. Adjust the drive belt support **as needed**.

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

2. Ensure the motor is not running.
3. Loosen the adjustment bolts.
4. Position the bracket so that the prong is close to, but does not touch, the drive belt with the clutch handle engaged (approximately 1/8-1/16" [3-1.5mm]).
5. Retighten the adjustment bolts to 25-27 foot pounds (34-37 newton meters).

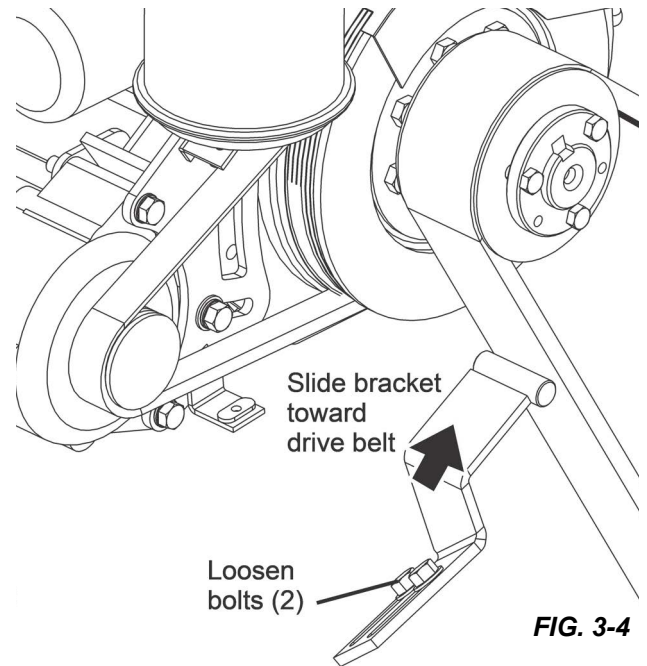


FIG. 3-4

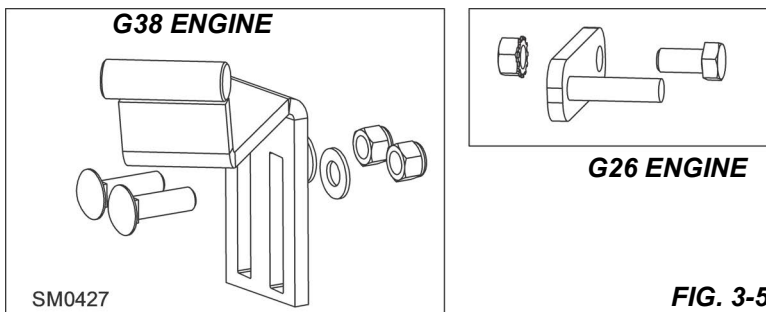


FIG. 3-5

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. Place a straight edge between the upper and lower clutch pivot centers.
4. Make sure the middle pivot is aligned to the straight edge.
5. If it is not, adjust the autoclutch link arm by turning the autoclutch link arm to adjust the rod end in or out as required and repeat Step 3. **Prior to Rev. A.12 Only:** Disassembly of one end of the autoclutch link arm is required to adjust the arm.
6. Lower the autoclutch toggle switch until the autoclutch motor quits cycling.

The autoclutch should pivot the engine/motor mount down, disengaging the drive belt.

7. With the drive belt disengaged, recheck the autoclutch turnbuckle.
8. Measure the distance between the outer rod link the inner rod link or spacer collar.
9. Make sure the distance is not less than 1/16" (it can vary for different sawmills). See FIG. 3-6.

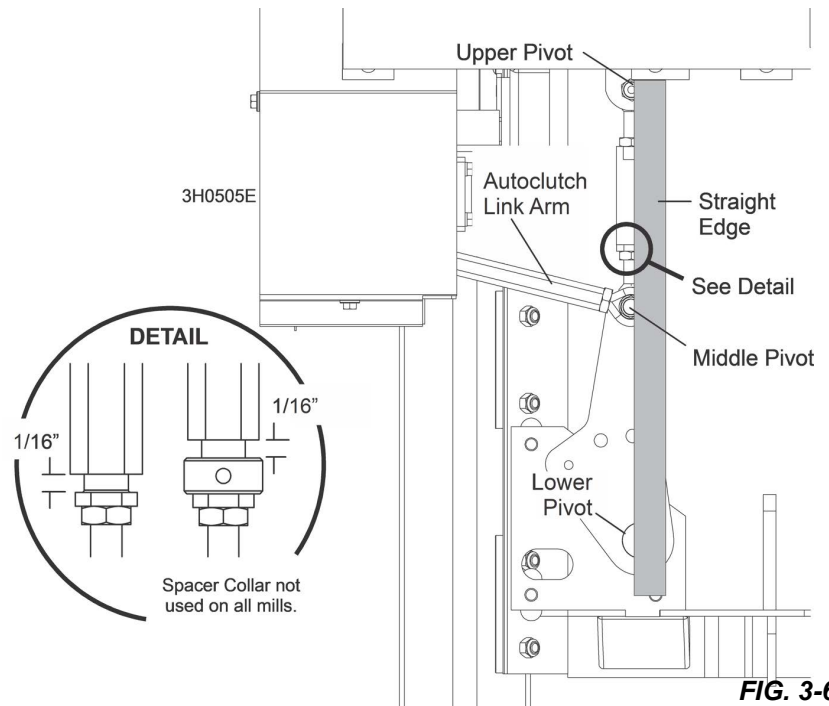


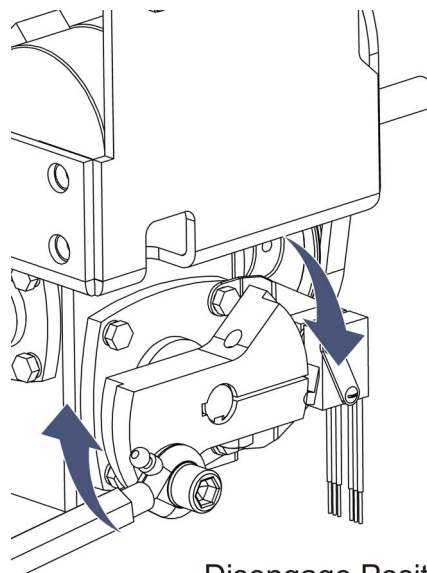
FIG. 3-6

3.5 Microswitch Alignment

1. Rotate the cam clockwise to the disengage position.
2. **NOTE:** In order to rotate the cam it may be necessary to spin the motor pulley by hand. **See Fig. 3-7.**



CAUTION! Be sure to rotate cam clockwise; rotating the cam counterclockwise can cause damage to the switches.



3H0733

FIG. 3-7

3. Adjust the cam on the shaft as necessary until the cam is evenly spaced with respect to both microswitches. **See Fig. 3-8.**

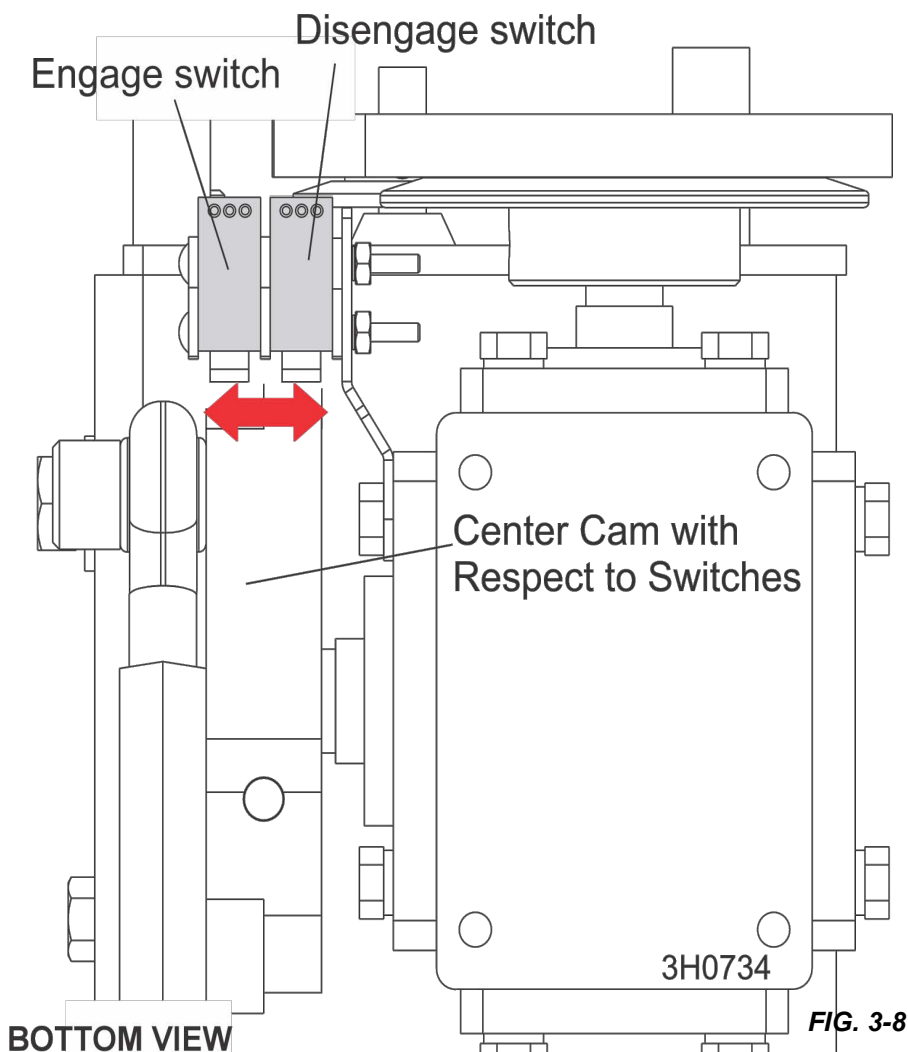


FIG. 3-8

4. Check to ensure the microswitch mounting bracket is parallel with the cam.
5. If necessary, slightly bend by hand to adjust. Then, loosen the microswitch mounting screws.
6. Place a credit card between the cam and the roller lever of the disengage switch.
7. Move the engage and disengage switches together as necessary until the roller lever is fully depressed against the card.
8. Retighten the switch mounting screws and remove the credit card. **See Fig. 3-9.**

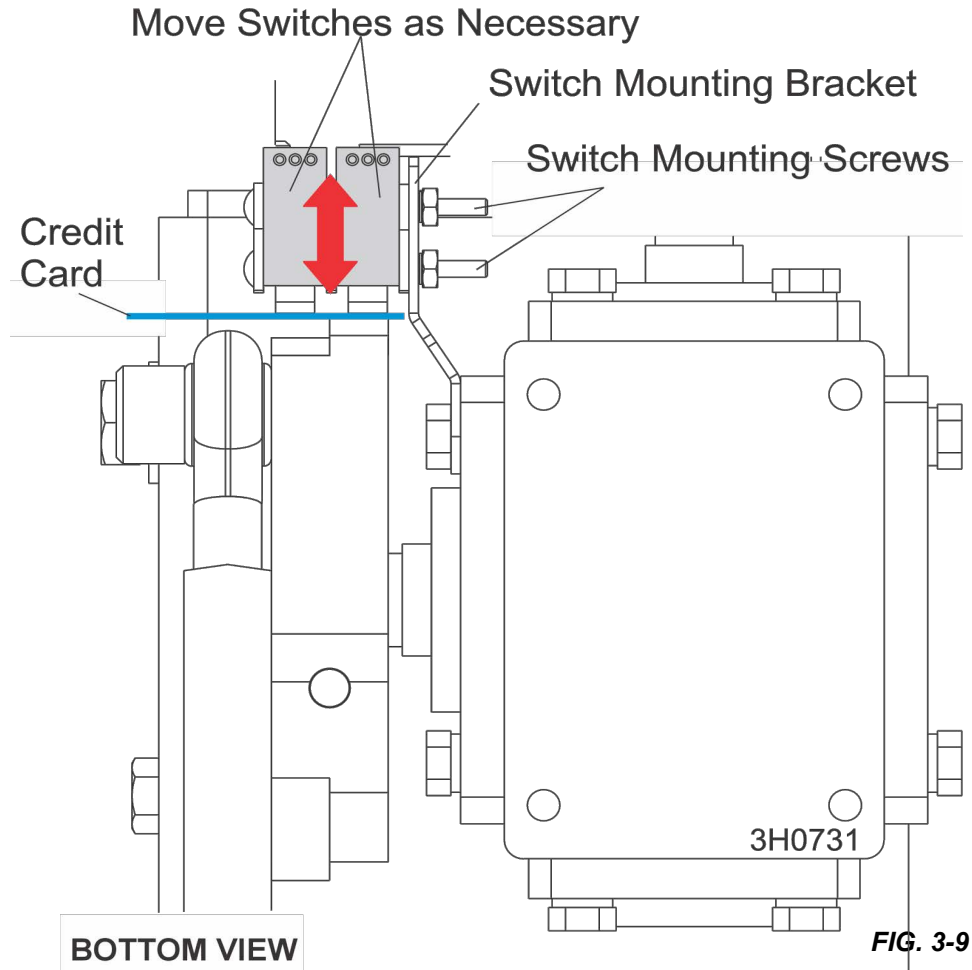


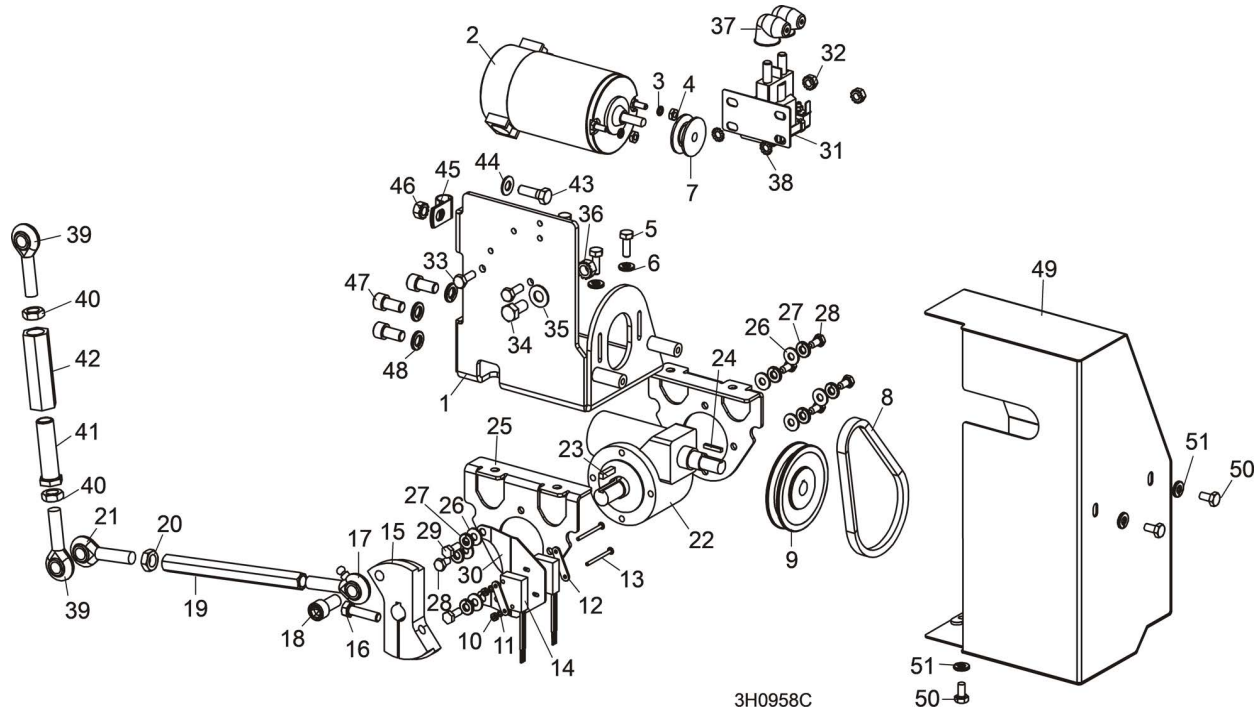
FIG. 3-9

3.6 Troubleshooting

Problem	Cause	Solution
Autoclutch will not stop; continues to engage and disengage	Cam and switches not aligned properly	Check microswitch alignment (See Section 3.4)
	Microswitch damaged due to mis-alignment	Position autoclutch switch, in center position. If autoclutch stops, inspect microswitch lever. If bent, replace switch.
Autoclutch will not engage or disengage	15Amp or 30Amp breaker tripped; 15Amp ACC Breaker (CB4) tripped	Check and reset as needed
	Cam and switches not aligned properly	Check microswitch alignment (See Section 3.4)
	Bad microswitch	Use volt meter to measure voltage at small post of solenoid (Solenoid 6) to chassis ground. If no voltage is present, replace microswitch and repeat alignment procedure. (If you don't have a volt meter, try to notice if solenoid is clicking. If it is not clicking, replace microswitch.)
	Bad chassis ground at solenoid	If there is +12V at small post on solenoid but it does not click, tighten solenoid mounting bolts for a better ground
	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.
	Bad solenoid	If solenoid clicks, +12V is measured at small post and ground to solenoid is good, but +12V is measured at only one large post, replace solenoid.
Autoclutch will engage or disengage only (won't do both)	Bad microswitch connection	Ensure good connection. If Autoclutch won't disengage, the disengage switch (wire #29) must be reconnected. If Autoclutch won't engage, the engage switch (wire #28) must be reconnected.
	Damaged switch	Replace switch

SECTION 4 REPLACEMENT PARTS

4.1 Autoclutch Assembly Retrofit (3/05)

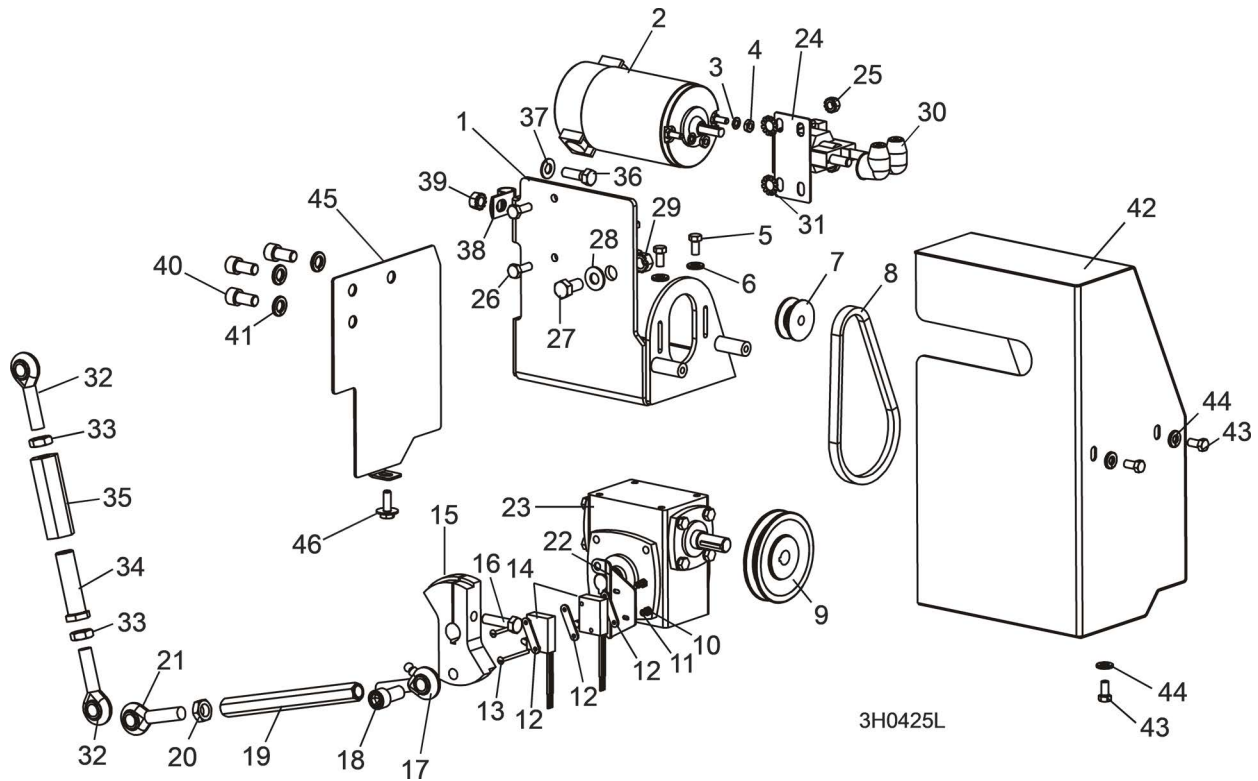


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	016215	Clutch Assembly, Automatic		1
1	016216	Mount Weldment, Autoclutch Gearbox		1
2	016021	Motor Assembly, Autoclutch Replacement		1
	034002	Brush Kit, Autoclutch Leeson Motor External		1
3	F05011-20	Washer, #10 Split Lock		2
4	F05010-27	Nut, #10-32 Hex		2
5	F05005-123	Bolt, 1/4-20 x 3/4" Hex Head Grade 5		4
6	F05011-14	Washer, 1/4" Split Lock		4
7	015074	Sheave, 1.42 x .32		1
8	016219	Belt, 3L140		1
9	015075	Sheave, 0K30 x 1/2		1
10	F05010-43	Nut, #4-40 Hex		2
11	F05011-21	Washer, #4 Split Lock		2
12	015681	Plate, Switch Retainer		3
13	F05004-103	Bolt, #4-40 x 1 1/2" Slotted		2
	024563	Switch Assembly, Autoclutch Replacement		2
14	015865	Switch Assembly, Autoclutch	Available in assemblies only.	1
	024563-891	Instructions, Autoclutch Switch Replacement		1
15	021395	Cam, Autoclutch Dual		1
16	F05006-21	Bolt, 5/16-24 x 1 1/4" Hex Head		1
17	015254	Rod End, R/H w/Grease Zerk		1
18	F05007-117	Screw, 7/16-20 x 1" Socket Head Cap Block Oxide		1
19	015062	Rod, Clutch Engagement		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
20	F05010-38	Nut, 7/16-20 Jam		1
21	P11579	Rod End, 7/16-20 RH Male		1
	036801	Gearbox Assembly, '98 Autoclutch		1
22	036764	Gearbox, 61:1 512 Reducer		1
23	S03060	Key, 3/16" Sq. x 3/4" Long		1
24	036803	Key, 1/8" Sq. x 3/4" Long		1
25	036807	Mount Weldment, Autoclutch Gearbox		2
26	F05011-11	Washer, 1/4" SAE Flat		7
27	F05011-14	Washer, 1/4" Split Lock		7
28	F05005-99	Bolt, M6 x 12 Full Thread Grade 8.8 Hex Head		5
29	F05004-219	Bolt, M6 x 1 x 16mm Hex Head		2
30	036800	Plate, Sensor Mount		1
31	016372	Solenoid Kit, Accessory		1
	P10449	Solenoid, 100A 12V Cont. Duty GND	Available in assemblies only.	1
	015426	Diode Assembly, Solenoid Coil Chassis GND		1
32	F05010-9	Nut, 1/4-20 Self-Locking Hex		2
33	F05005-1	Bolt, 1/4-20 x 3/4" Hex Head		2
34	F05007-27	Bolt, 3/8-16 x 3/4" Hex Head		1
35	F05011-3	Washer, 3/8" SAE Flat		1
36	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
37	P03807	Boot, 1/2" Rubber Terminal		2
38	F05011-37	Washer, 1/4" Star External Thread		2
39	P11579	Rod End, 7/16-20 Right-hand Male		2
40	F05010-38	Nut, 7/16-20 Hex Jam		2
	016325	Rod Kit, Autoclutch Inner/Outer Link		1
41	015070	Rod, Autoclutch Inner Link	Available in assemblies only.	1
42	015071	Rod, Autoclutch Outer Link	Available in assemblies only.	1
	P05035	Collar, 5/8" ID Lock	P05035 to provide increased range of adjustment for Kubota, Caterpillar & Yanmar diesel and G38 sawmills ONLY.	1
43	F05006-1	Bolt, 5/16-18 x 1" Hex Head		1
44	F05011-17	Washer, 5/16" SAE Flat		1
45	P07584	Clamp, 1/2" Coated EMT		1
46	F05010-20	Nut, 5/16-18 Self-Locking Hex		1
47	F05005-104	Bolt, 3/8-16 x 3/4" Socket Head		3
48	F05011-4	Washer, 3/8" Split		3
49	015735	Guard Weldment, Autoclutch		1
50	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		3
51	F05011-14	Washer, 1/4" Split Lock		3

4.2 Autoclutch Assembly

Rev. D.00

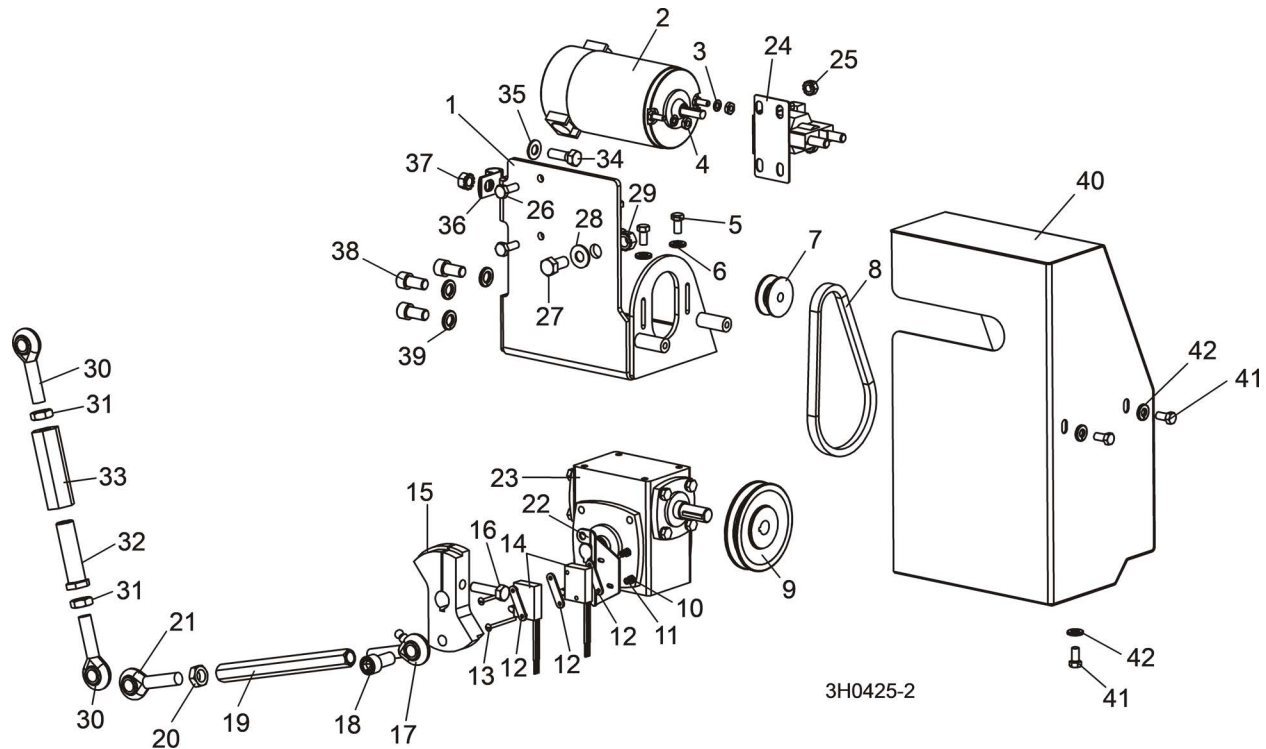


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	016215	Clutch Assembly, Automatic		1
1	016216	Mount Weldment, Autoclutch Gearbox		1
2	016021	Motor Assembly, Autoclutch Replacement	Motor kit revised 10/01. Leeson motor 016706 replaces Leeson motor 034001 (12/00) and Owosso motor P12093 originally supplied. New motor requires longer 3L150 belt 015076.	1
	034002	Brush Kit, Autoclutch Leeson Motor External		1
	A12198	Brush Kit, Autoclutch Owosso Motor External		1
3	F05011-20	Washer, #10 Split Lock		2
4	F05010-27	Nut, #10-32 Hex		2
5	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		4
6	F05011-14	Washer, 1/4" Split Lock		4
7	015074	Sheave, 1.42 x .32		1
8	015076	Belt, 3L150	Use 015076 3L150 Belt for Leeson motor supplied after 12/00.	1
	016219	Belt, 3L140	Use 016219 3L140 belt for Owosso motor	1
9	015075	Sheave, 0K30 x 1/2		1
10	F05010-43	Nut, #4-40 Hex		2
11	F05011-21	Washer, #4 Split Lock		2
12	015681	Plate, Switch Retainer		3
13	F05004-103	Bolt, #4-40 x 1 1/2" Slotted		2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	024563	Switch Assembly, Autoclutch Replacement	Microswitch kit 024563 replaces switch assembly 015865 and component switch 014765.	2
14	015865	Switch Assembly, Autoclutch	Available in assemblies only.	1
	024563-891	Instructions, Autoclutch Switch Replacement		1
15	021395	Cam, Autoclutch Dual		1
16	F05006-21	Bolt, 5/16-24 x 1 1/4" Hex Head		1
17	015254	Rod End, R/H w/Grease Zerk		1
18	F05007-117	Screw, 7/16-20 x 1" Socket Head Cap Block Oxide		1
19	015062	Rod, Clutch Engagement		1
20	F05010-38	Nut, 7/16-20 Jam		1
21	P11579	Rod End, 7/16-20 RH Male		1
22	015024	Bracket, Clutch Switch		1
23	015067	Gearbox, 60:1 I034	Available in assemblies only. Gearbox 015067 (square) replaced with Gearbox 036801 (3/05).	1
24	016372	Solenoid Kit, Accessory	Solenoid Kit 016372 replaces P10449. Diode Wire Assembly 015426 added to Solenoid Kit 016372 (8/04).	1
	P10449	Solenoid, 100A 12V Cont. Duty GND	Available in assemblies only.	1
	015426	Diode Assembly, Solenoid Coil Chassis GND		1
25	F05010-9	Nut, 1/4-20 Self-Locking Hex		2
26	F05005-1	Bolt, 1/4-20 x 3/4" Hex Head		2
27	F05007-27	Bolt, 3/8-16 x 3/4" Hex Head		1
28	F05011-3	Washer, 3/8" SAE Flat		1
29	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
30	P03807	Boot, 1/2" Rubber Terminal		2
31	F05011-37	Washer, 1/4" Star External Thread		2
32	P11579	Rod End, 7/16-20 Right-hand Male		2
33	F05010-38	Nut, 7/16-20 Hex Jam		2
	016325	Rod Kit, Autoclutch Inner/Outer Link	Kit 016325 includes both rod links to insure compatibility. Kit P05035 for Kubota, Caterpillar & Yanmar diesel and G38 saw-mills ONLY.	1
34	015070	Rod, Autoclutch Inner Link	Available in assemblies only.	1
35	015071	Rod, Autoclutch Outer Link	Available in assemblies only.	1
	P05035	Collar, 5/8" ID Lock		1
36	F05006-1	Bolt, 5/16-18 x 1" Hex Head		1
37	F05011-17	Washer, 5/16" SAE Flat		1
38	P07584	Clamp, 1/2" Coated EMT		1
39	F05010-20	Nut, 5/16-18 Self-Locking Hex		1
40	F05005-104	Bolt, 3/8-16 x 3/4" Socket Head		3
41	F05011-4	Washer, 3/8" Split		3
42	015735	Guard Weldment, Autoclutch		1
43	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		3
44	F05011-14	Washer, 1/4" Split Lock		3
45	016232	Guard, AutoClutch Back		1
46	F05005-134	Bolt, 1/4-20 x 3/4" Hex Head W/Conical Washer		1

4.3 Autoclutch Assembly

Rev. A.00 - C.00

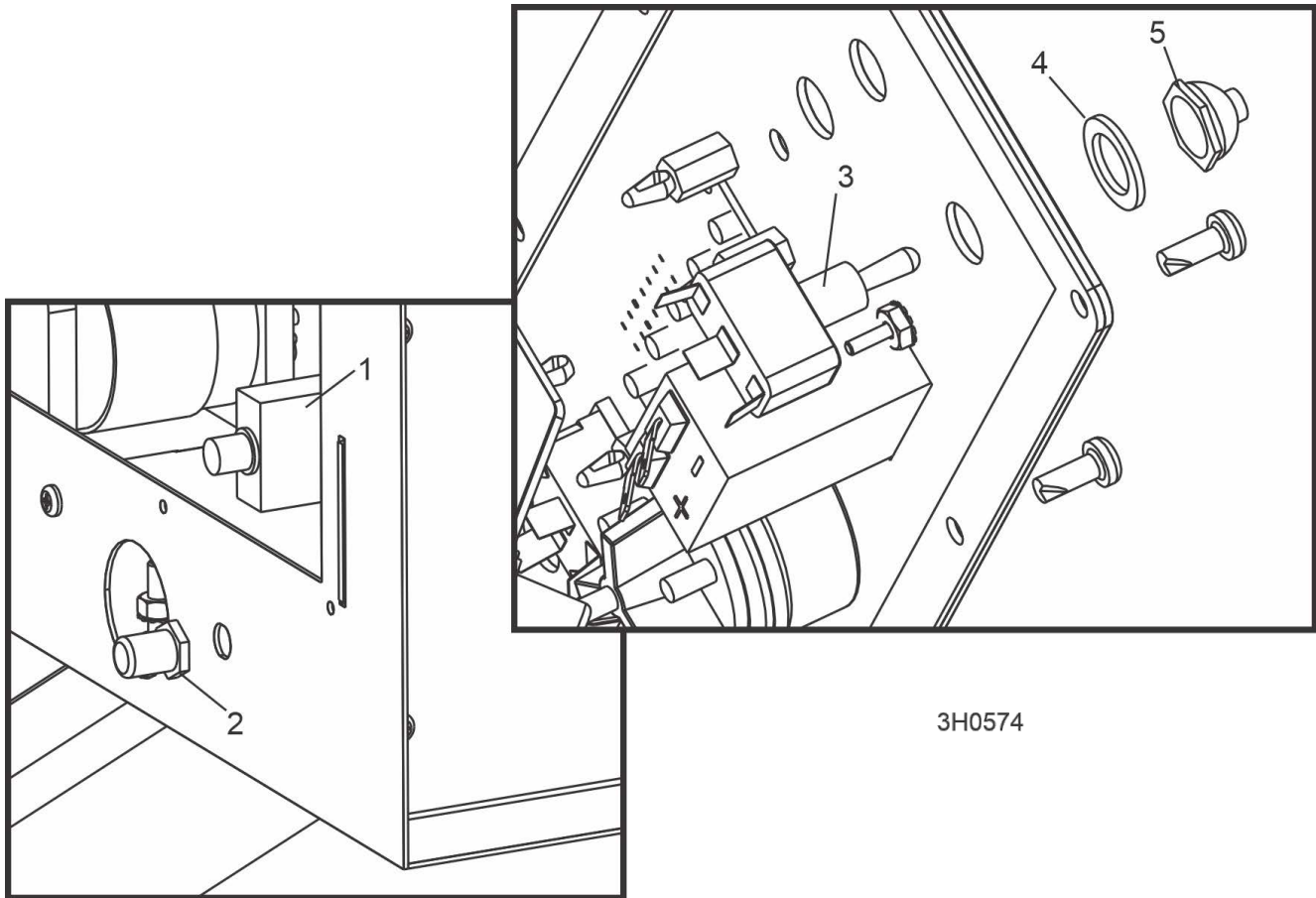


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REF	PART #	DESCRIPTION	COMMENTS	QTY.
	015077	Clutch Assembly, Automatic		1
1	015017	Mount Weldment, Autoclutch Gearbox		1
2	016021	Motor Assembly, Autoclutch Replacement	Motor kit revised 10/01. Leeson motor 016706 replaces Leeson motor 034001 (12/00) and Owosso motor P12093. New motor requires 3L150 belt 015076.	1
	034002	Brush Kit, Autoclutch Leeson Motor External	Use 034002 Brush Kit for Leeson motor supplied after 12/00.	1
	A12198	Brush Kit, Autoclutch Owosso Motor External	Use A12198 Brush Kit for Owosso motor.	1
3	F05011-20	Washer, #10 Split Lock		2
4	F05010-27	Nut, #10-32 Hex		2
5	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		4
6	F05011-14	Washer, 1/4" Split Lock		4
7	015074	Sheave, 1.42 x .32		1
8	015076	Belt, 3L150	Use 015076 3L150 Belt for Leeson motor supplied after 12/00.	1
	016219	Belt, 3L140	Use 016219 3L140 belt for Owosso motor.	1
9	015075	Sheave, 0K30 x 1/2		1
10	F05010-43	Nut, #4-40 Hex		2
11	F05011-21	Washer, #4 Split Lock		2
	015681	Plate, Switch Retainer		3
13	F05004-103	Bolt, #4-40 x 1 1/2" Slotted		2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	024563	Switch Assembly, Autoclutch Replacement	Microswitch kit 024563 replaces 015865 and component switch 014765.	2
14	015865	Switch Assembly, Autoclutch	Available in assemblies only.	1
	024563-891	Instructions, Autoclutch Switch Replacement		1
15	021395	Cam, Autoclutch Dual		1
16	F05006-21	Bolt, 5/16-24 x 1 1/4" Hex Head		1
17	015254	Rod End, R/H w/Grease Zerk		1
18	F05007-117	Screw, 7/16-20 x 1" Socket Head Cap Block Oxide		1
19	015062	Rod, Clutch Engagement		1
20	F05010-38	Nut, 7/16-20 Jam		1
21	P11579	Rod End, 7/16-20 RH Male		1
22	015024	Bracket, Clutch Switch		1
23	015067	Gearbox, 60:1 I034	Available in assemblies only. Gearbox 015067 (square) replaced with 036801 (3/05).	1
24	016372	Solenoid Kit, Accessory	Solenoid Kit 016372 replaces Solenoid P10449. Diode Wire Assembly 015426 added to Solenoid Kit 016372 (8/04).	1
	P10449	Solenoid, 100A 12V Cont. Duty GND	Available in assemblies only.	1
	015426	Diode Assembly, Solenoid Coil Chassis GND		1
	015426	Diode Assembly, Solenoid Coil Chassis GND		1
25	F05010-9	Nut, 1/4-20 Self-Locking Hex		2
26	F05005-1	Bolt, 1/4-20 x 3/4" Hex Head		2
27	F05007-27	Bolt, 3/8-16 x 3/4" Hex Head		1
28	F05011-3	Washer, 3/8" SAE Flat		1
29	F05010-19	Nut, 3/8-16 Self-Locking Hex		1
30	P11579	Rod End, 7/16-20 Right-hand Male		2
31	F05010-38	Nut, 7/16-20 Hex Jam		2
	016325	Rod Kit, Autoclutch Inner/Outer Link	Kit 016325 includes both rod links to insure compatibility. Kit also includes lock collar spacer P05035 for Kubota, Caterpillar & Yanmar diesel and G38 saw-mills ONLY.	1
32	015070	Rod, Autoclutch Inner Link	Available in assemblies only.	1
33	015071	Rod, Autoclutch Outer Link	Available in assemblies only.	1
	P05035	Collar, 5/8" ID Lock		1
34	F05006-1	Bolt, 5/16-18 x 1" Hex Head		1
35	F05011-17	Washer, 5/16" SAE Flat		1
36	P07584	Clamp, 1/2" Coated EMT		1
37	F05010-20	Nut, 5/16-18 Self-Locking Hex		1
38	F05005-104	Bolt, 3/8-16 x 3/4" Socket Head	Guard and mounting hardware removed from 015077 3/98. Parts are not assembled until autoclutch is installed on saw-mill.	3
39	F05011-4	Washer, 3/8" Split		3
40	015735	Guard Weldment, Autoclutch		1
41	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		3
42	F05011-14	Washer, 1/4" Split Lock		3

4.4 Autoclutch Control Parts

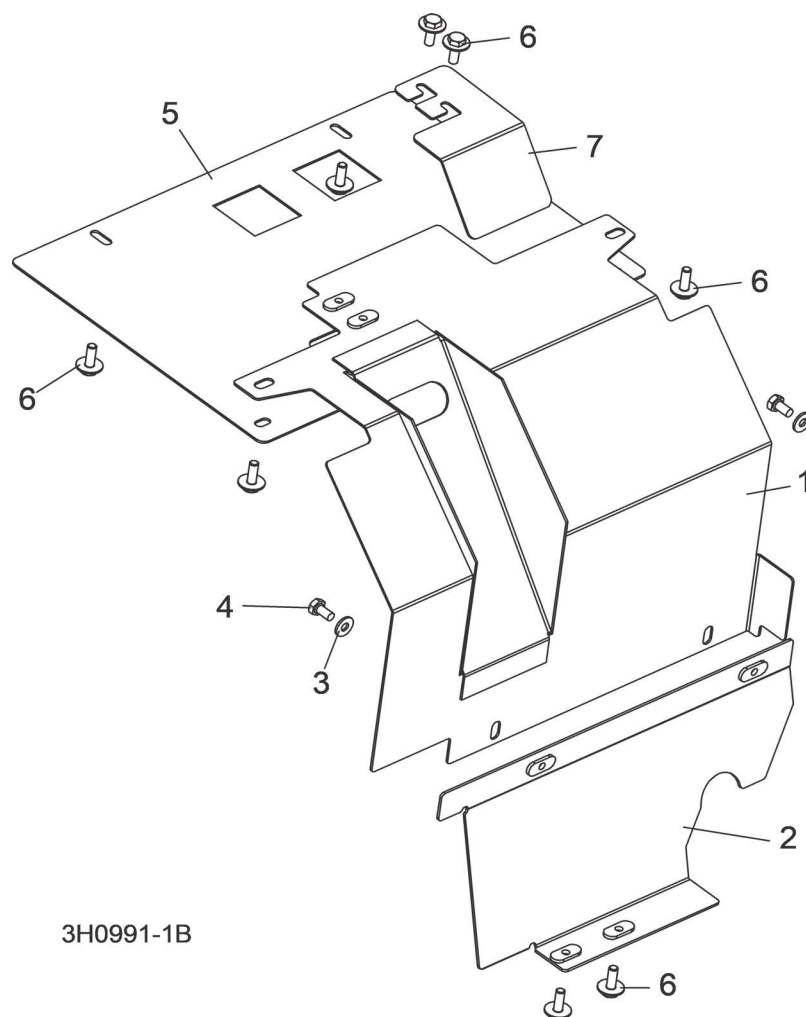


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REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	024246	Breaker, 30A Manual Reset Panel Mount		1
2	021253	Boot, Circuit Breaker		1
3	051346	Switch, On/On Toggle SPDT	051346 replaces 015665 On/Off/On Toggle Switch supplied before 8/03.	1
4	P05251-1	Washer, 1/2" ID x 3/4" OD x 1/16" Thick Nylon		1
5	P02575	Boot, Toggle Switch		1

4.5 Belt Guards

Retrofit

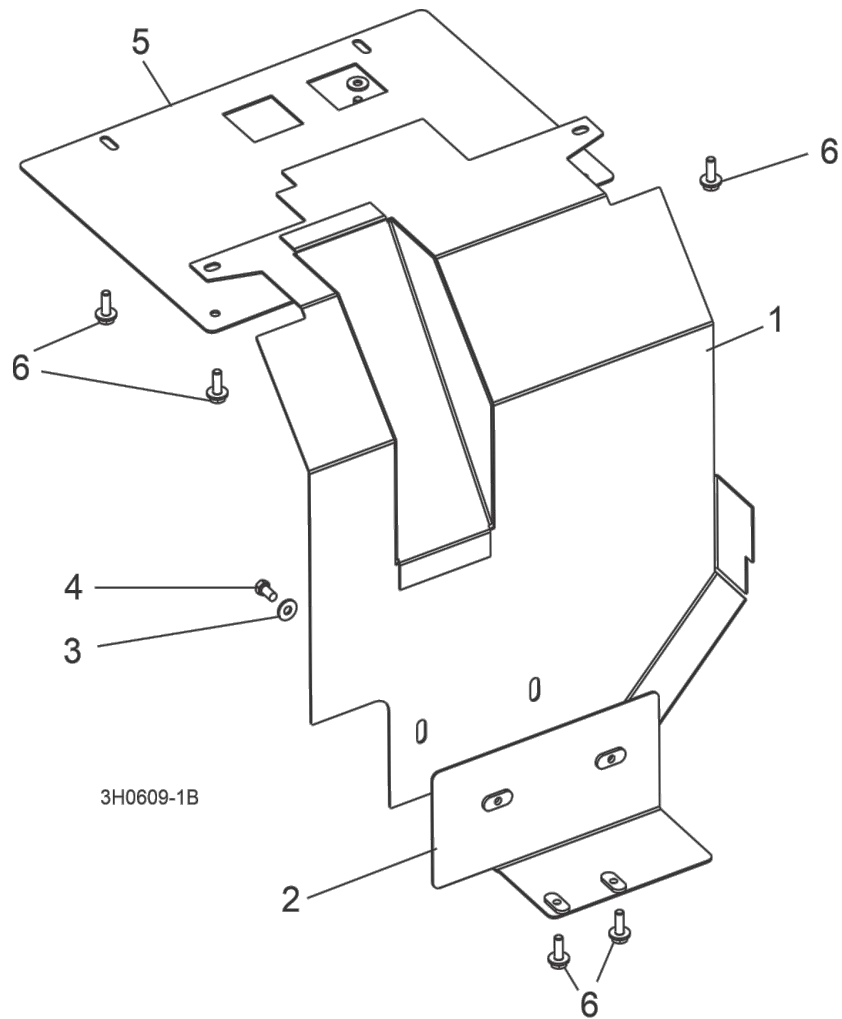


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REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	006026	Guard Weldment, Automatic Clutch		1
2	006025	Mount Weldment, Clutch Guard		1
3	F05011-11	Washer, 1/4" SAE Flat		2
4	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		2
5	016089	Plate, Lower Belt Auxiliary Guard	Auxiliary plate required for Non-Super models without board return mechanism.	1
6	F05005-134	Bolt, 1/4-20 x 3/4" Hex Head with Conical Washer		8
7	074752	Plate, LT40 Belt Guard Cover	Added (9/15).	1

4.6 Belt Guards

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REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	015656	GUARD WELDMENT, AUTOMATIC CLUTCH		1
2	015678	MOUNT WELDMENT, CLUTCH GUARD		1
3	F05011-11	WASHER, 1/4" SAE FLAT		2
4	F05005-15	BOLT, 1/4-20 X 1/2" HEX HEAD		2
5	016089	Plate, Lower Belt Auxiliary Guard	Auxiliary plate required for Non-Super models without board return mechanism.	1
6	F05005-134	Bolt, 1/4-20 x 3/4" Hex Head with Conical Washer		6

SECTION 5 ELECTRICAL INFORMATION

5.1 Electrical Components

Component	Manufacturer Part No.	Manufacturer	Wood-Mizer Part No.	Description
CB9	1600-037-030-009	Mech. Prod.	024246	Breaker, 30A Manual Reset Panel Mount
D6	015426	Wood-Mizer	015426 ¹	Diode Assy, Solenoid Coil Chassis Ground
M5	S.I. 2917-A	Leeson ²	016021	Motor, 12V 1/3HP External Brush
S5	CH-55015	Indy Wire	051346 ³	Switch, On/On Toggle SPDT
S6, S7	024563	Wood-Mizer	024563 ⁴	Switch Assembly, Auto Clutch Replacement
WA1	061052	Wood-Mizer	061052	Wire Assembly, Autoclutch Mosfet Gate Diode
SOL6	120-943	Stancor	016372 ⁵	Solenoid, Accessory Circuit

¹ Diode Assembly 015426 added to Solenoid Kit (8/04).

² Replaces Owosso motor #PV-28147Q originally supplied prior to Rev. A.04 (12/00).

³ 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 Microswitch kit 024563 replaces switch assembly 015865 and component switch 014765. Kit includes required hardware and instructions.

⁵ Solenoid Kit 016372 replaces Solenoid P10449. Kit includes solenoid and replacement instructions. Diode Assembly 015426 added to Solenoid Kit (8/04).

5.2 Electrical Diagrams

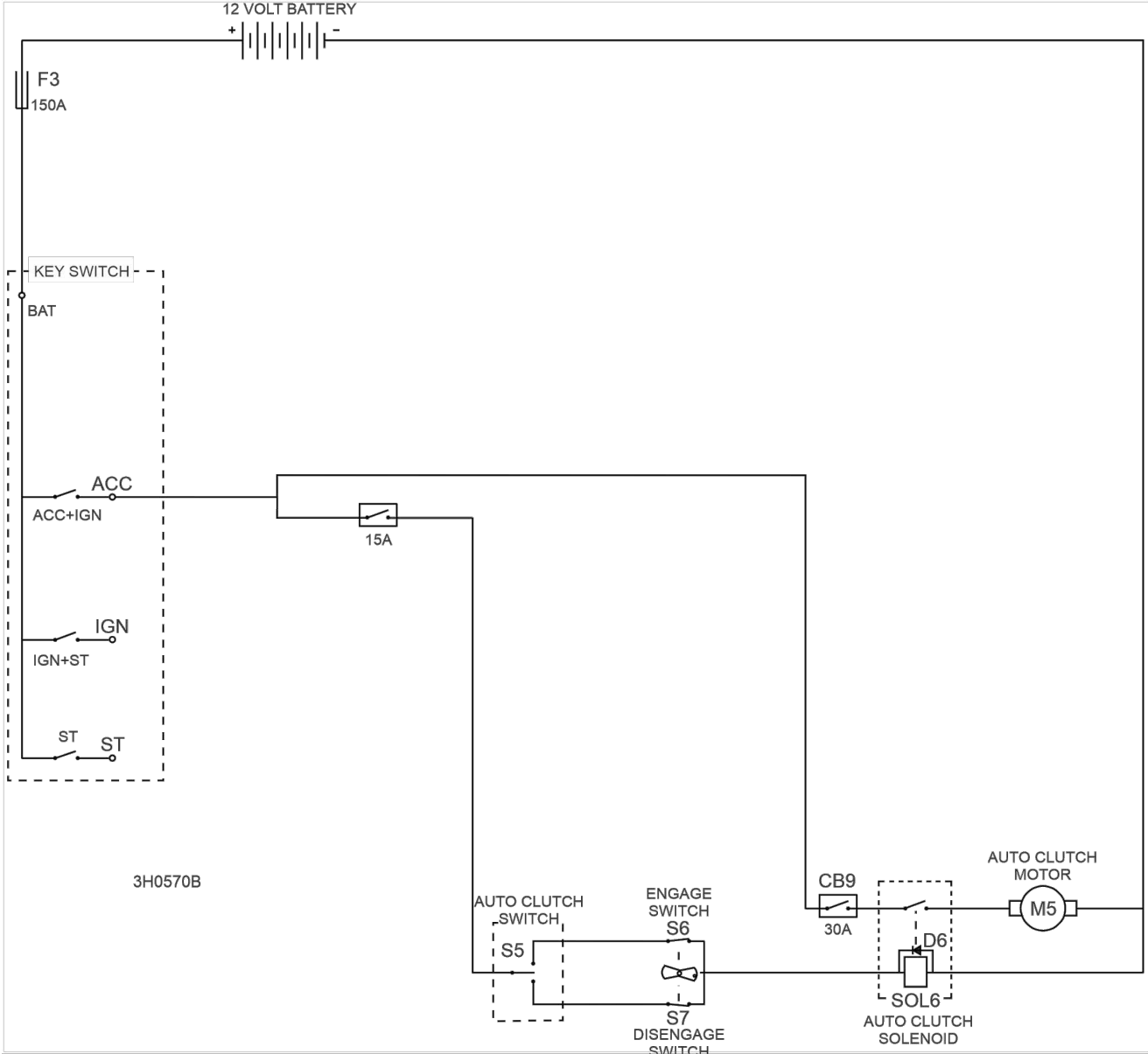


FIG. 5-1 AUTOCLUTCH SYMBOL DIAGRAM (NON-SUPER SAWMILL).

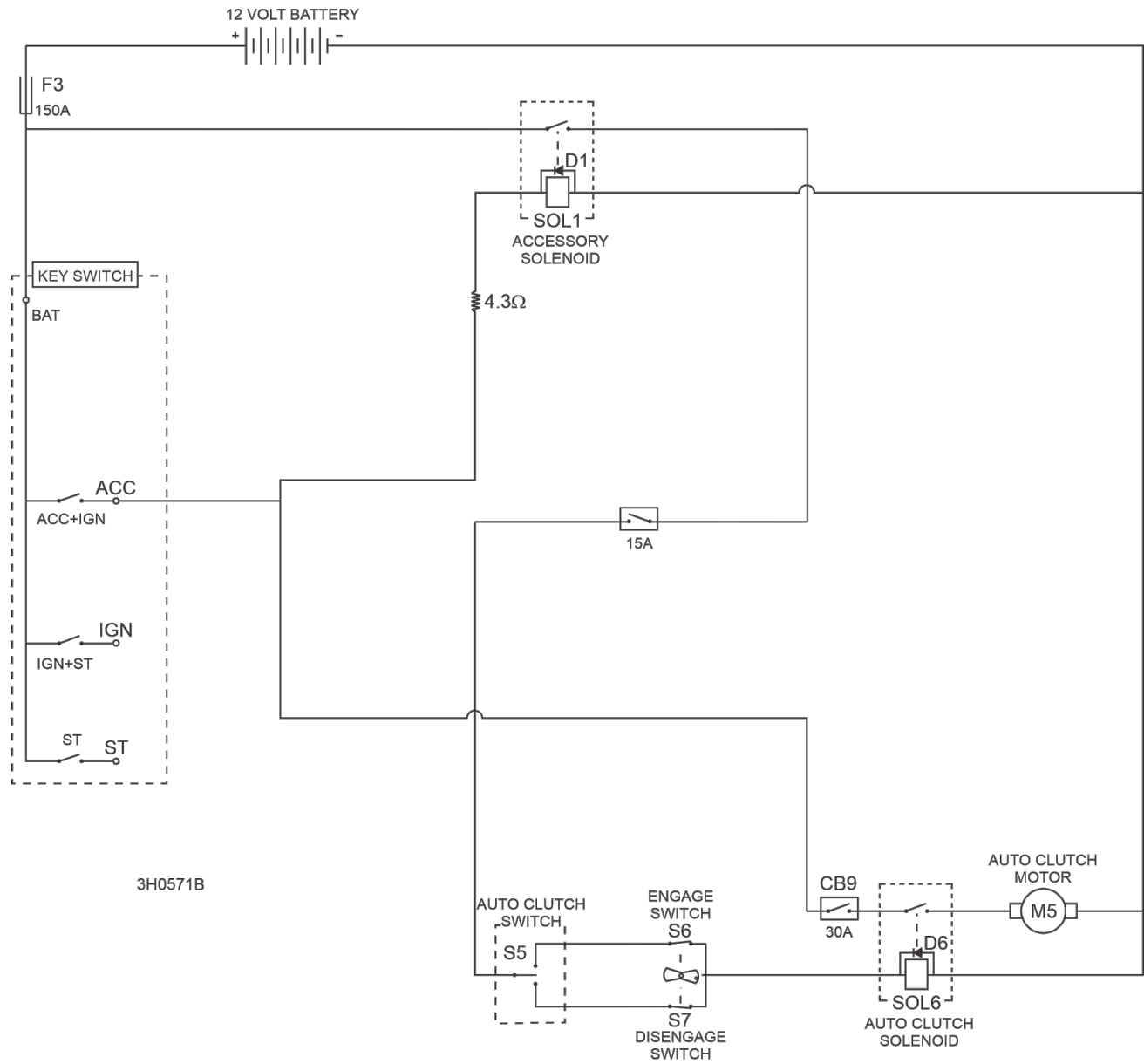


FIG. 5-2 AUTOCLUTCH SYMBOL DIAGRAM (NON-SUPER SAWMILL).

5.3 Electrical Wiring Diagrams (Non-Remote Sawmill Only)

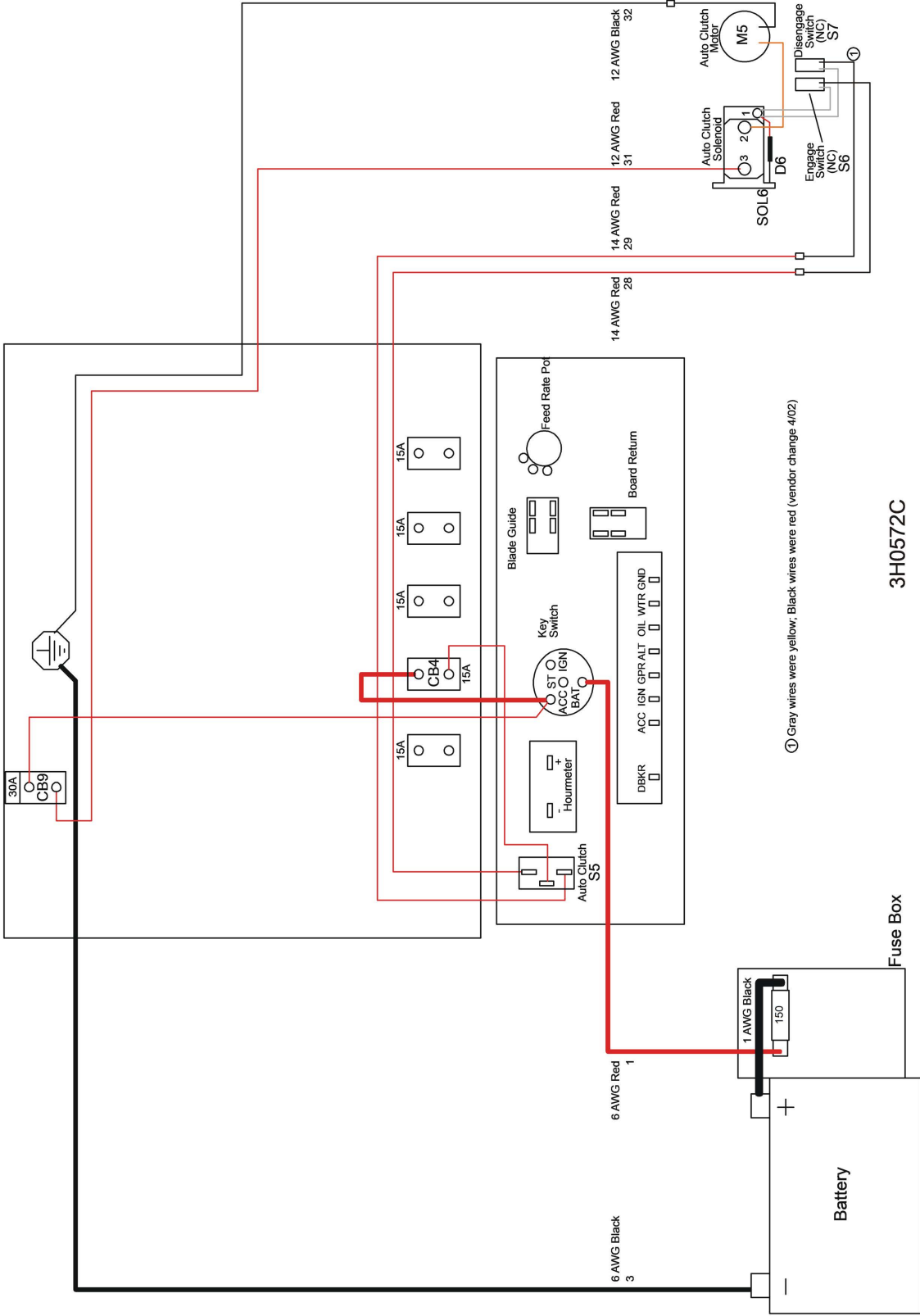


FIG. 5-3 AUTOCLUTCH WIRING DIAGRAM (NON-SUPER)

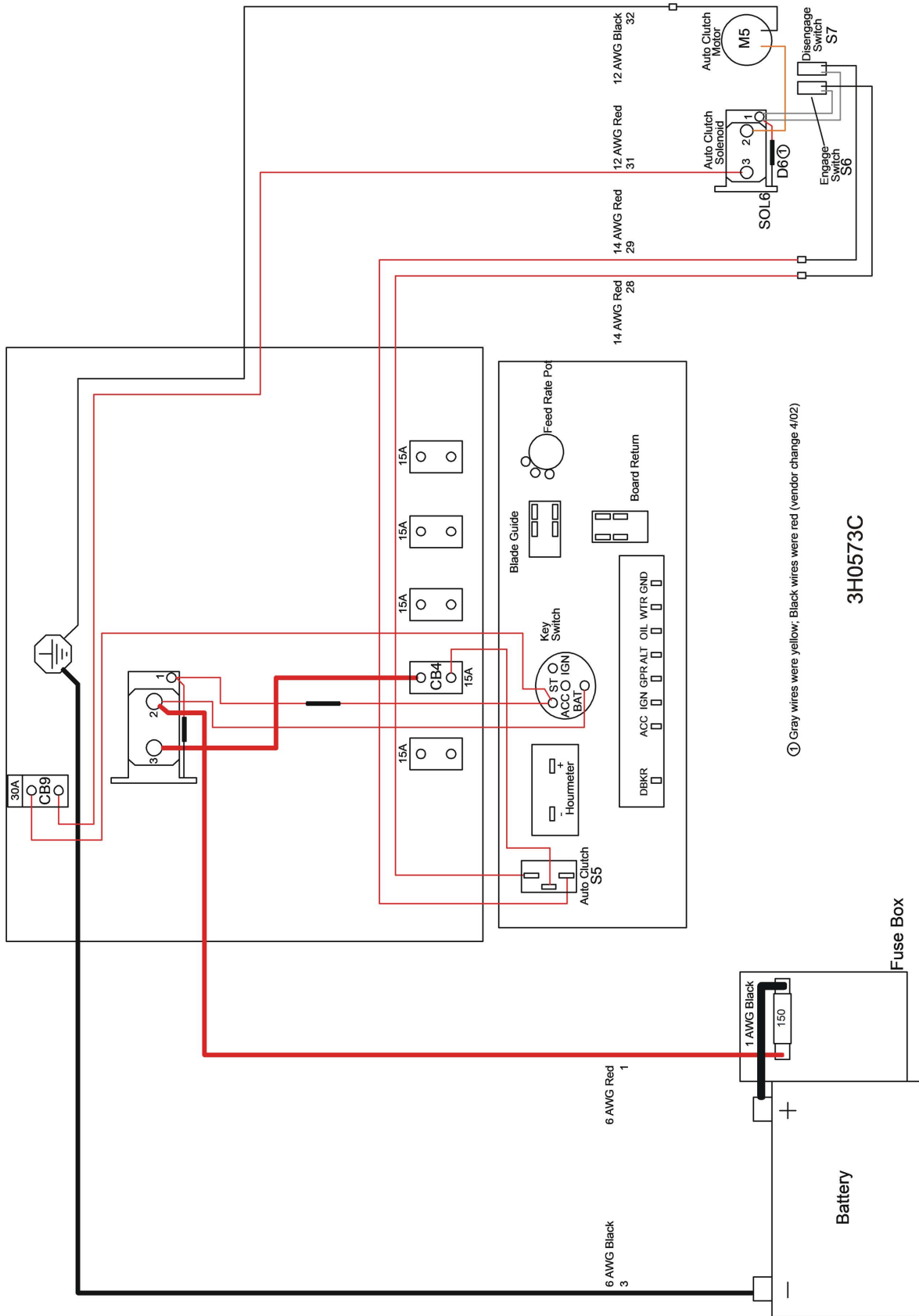


FIG. 5-4 AUTOCLUTCH WIRING DIAGRAM (SUPER)

5.4 Electrical Wiring Diagrams (Remote Sawmill Only)

See *Engine Electrical Information Appendix* for electrical wiring diagrams.