

Wood-Mizer®

**EA3000 Edger
Cooper_Marine_I**

**Safety, Operation,
Maintenance**

EA3000

rev. A1.00



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

Form #815_e_Cooper_Marine_I

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SECTION 1 SERVICING THE EDGER

1.1 Safety & General Information

Wood-Mizer is committed to providing you with the latest technology, best quality and strongest customer service available on the market today. We continually evaluate our customers' needs to ensure we're meeting current wood-processing demands. Your comments and suggestions are welcome.

The present documentation contains information that should be used when preparing the machine for operation, working with it and when servicing or repairing it, as well.

The EA3000 Edger is intended for sawing wood only. See Section Specifications for log size capacities of the machine. The machine must not be used for any other purposes such as cutting ice, metal or any other materials.

Using the machine correctly, you will obtain a high degree of accuracy and efficiency.

The Edger should be operated only by an adult (over 18 year old) who has read and understood the entire operator's manual. The Edger is not intended for use by or around children.

The machine is built to be durable and easy to operate and maintain.

1.2 If You Need To Order Parts

From Europe call our European Headquarters and Manufacturing Facility in Kolo, Nagórna Street, Poland at **+48-63-2626000**. Please have the vehicle identification number and your customer number ready when you call. Wood-Mizer will accept these methods of payment:

- Visa, Mastercard, or Discover
- COD
- Prepayment
- Net 15 (with approved credit)

Be aware that shipping and handling charges may apply. Handling charges are based on size and quantity of order. In most cases, items will ship on the day they are ordered. Second Day and Next Day shipping are available at additional cost.

1.3 Customer and Edger Identification

Each Wood-Mizer Edger has its own serial number. In addition, when you pick up your edger, you will receive a customer number. These two numbers will help expedite our service to you. Please locate them now and write them below so you have quick, easy access to them.

See Figure 1-1 An identification plate of the EA3000 Edger is described below.

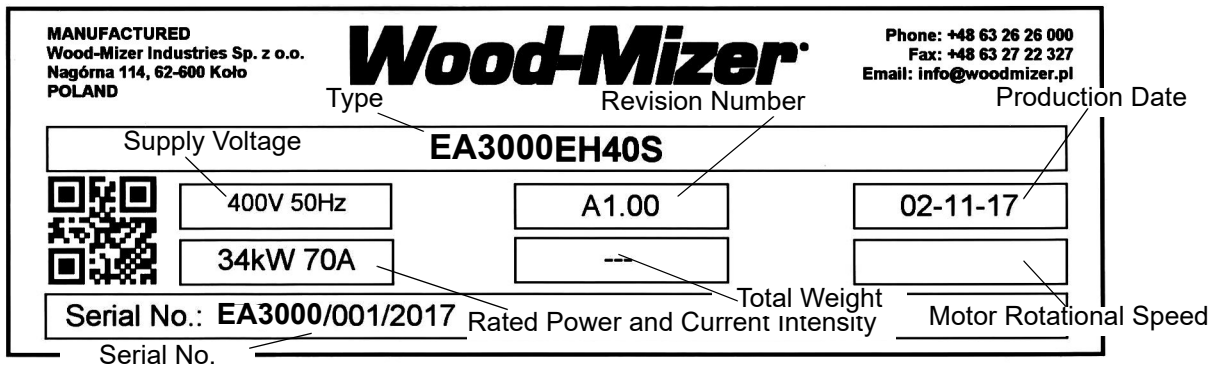


FIG. 1-1

See Figure 1-2 See the following figures for the serial number location.

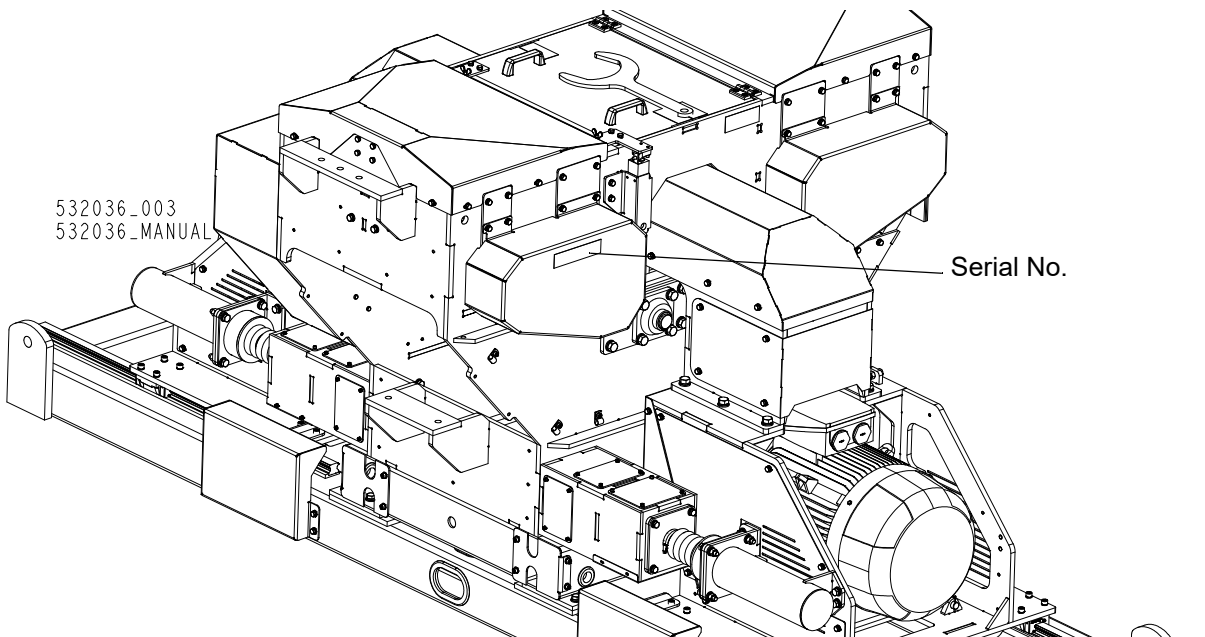


FIG. 1-2

1.4 If You Need Service

From Europe call our European Headquarters and Manufacturing Facility in Koło, Nagórna Street, Poland at **+48-63-2626000**. Ask to speak with a Customer Service Representative. Please have the vehicle identification number and your customer number ready when you call. The Service Representative can help you with questions about the operation and maintenance of your moulder. He also can schedule you for a service call.

Office Hours:

Country	Monday - Friday	Saturday	Sunday
USA	8.00 am - 5.00 pm	8.00 am - 12.00 pm	Closed
Poland	7.00 am - 04:00 pm	Closed	Closed

1.5 EA3000 Edger Components

See Figure 1-3 The major components of the EA3000 Edger are shown below.

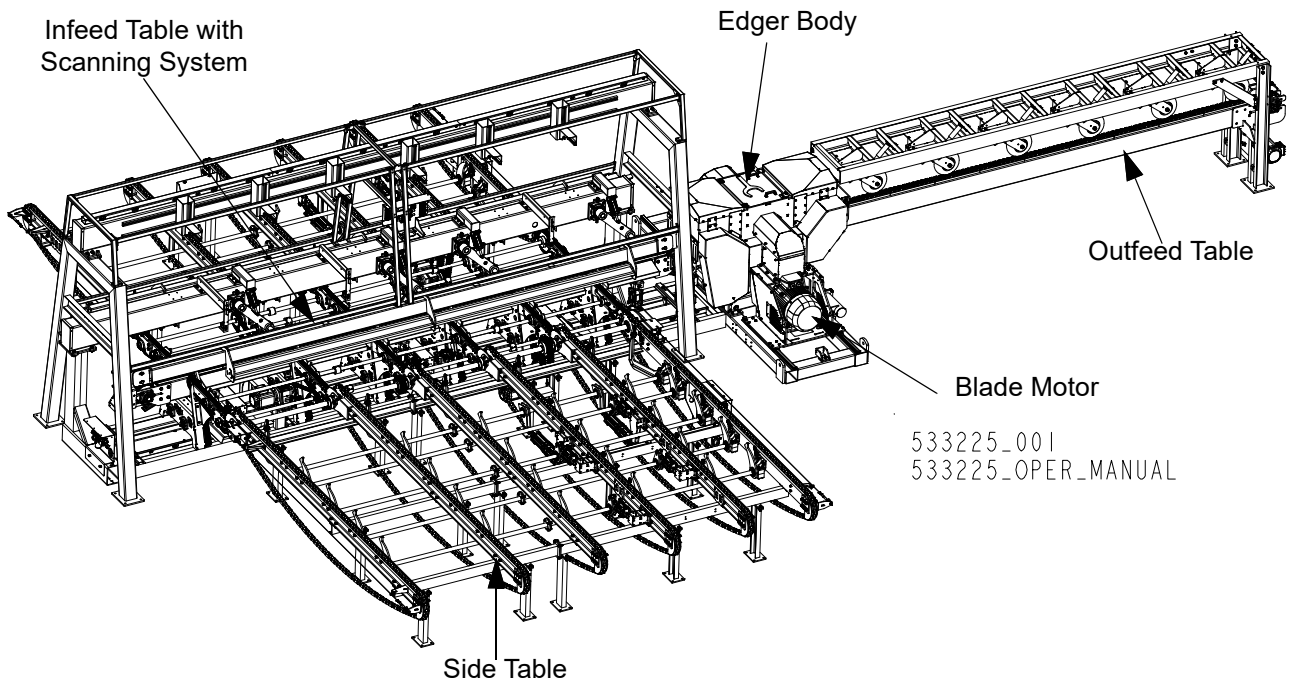




FIG. 1-3 EA3000


SECTION 2 SAFETY


2.1 Safety Symbols

The following symbols and signal words call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.


 **DANGER!** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING!** suggests a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION!** refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury to persons or equipment.

 **IMPORTANT!** indicates vital information.


NOTE: gives helpful information.

 Warning stripes are placed on areas where a single decal would be insufficient. To avoid serious injury, keep out of the path of any equipment marked with warning stripes.

2.2 Safety Instructions

NOTE: ONLY safety instructions regarding personal injury are listed in this section. Caution statements regarding only equipment damage appear where applicable throughout the manual.

Observe Safety Instructions

 **IMPORTANT!** Read the entire Owner's Manual before operating the Edger. Take notice of all safety warnings throughout this manual and those posted on the machine. Keep this manual with this machine at all times, regardless of ownership.

Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Only persons who have read and understood the entire operator's manual should operate the Edger. The Edger is not intended for use by or around children.

IMPORTANT! It is always owner's responsibility to comply with all applicable federal, state and local laws, rules and regulations regarding the ownership and operation of your Wood-Mizer Edger. All Wood-Mizer owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using the Edger.

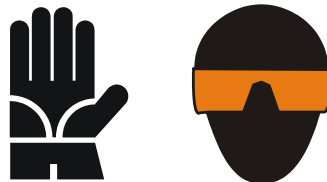


Wear Safety Clothing



WARNING! Secure all loose clothing and jewelry before operating the Edger. Failure to do so may result in serious injury or death.


WARNING! Always wear safety goggles and gloves when replacing the blade. Changing blades is safest when done by one person! Keep all other persons away from work area when changing a blade. Failure to do so may result in serious injury.




WARNING! Always wear eye, ear, respiration, and foot protection when operating or servicing the machine.



Keep Edger and Area Around Edger Clean


 **DANGER!** Maintain a clean and clear path for all necessary movement around the Edger and lumber stacking areas. Failure to do so may result in serious injury.

Dispose of Sawing By-Products Properly


 **IMPORTANT!** Always properly dispose of all sawing by-products, including sawdust and other debris.

CAUTION! The Edger’s work-stand should be equipped with a 4 kg or bigger dry powder extinguisher.

Check Edger Before Operation

 **DANGER!** Make sure all guards and covers are in place and secured before operating the Edger. Failure to do so may result in serious injury.



 **WARNING!** Always turn off the motor to stop the blade whenever the Edger is not in use. Failure to do so may result in serious injury.

WARNING! Do not for any reason adjust the motor/engine drive belts with the machine running. Doing so may result in serious injury.

Keep Persons Away



DANGER! Keep all persons out of the path of moving equipment and boards when operating the Edger. Failure to do so may result in serious injury.

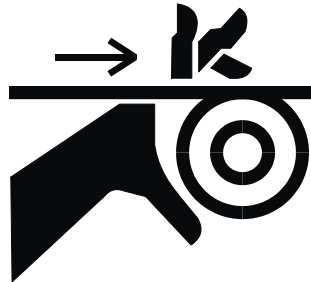
Keep Hands Away



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

DANGER! Moving Parts Can Crush and Cut. Keep hands clear. Make sure all guards and covers are in place and secured before operating or towing the Edger. Failure to do so may result in serious injury.

DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members resulting in possible injury.



WARNING! Always shut off the motor/engine and allow all moving parts to come to a complete stop before removing any guards or covers. Do NOT operate with any guard or cover removed.

WARNING! Kickback hazard. Stay clear of area during operation. Failure to do so may result in serious injury.



DANGER! Before changing the blades or performing any service to the machine, disconnect the power cord from the electric box.

IMPORTANT! The guards for the blades and drive are equipped with safety switches. As soon as you open the cover, the motor will get turned off and all moving parts will stop spinning. The safety switches should always be in proper working condition.

IMPORTANT! The cutting width setting system is equipped with two safety switches.

Use Proper Maintenance Procedures



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.

DANGER! Hazardous voltage inside the electric disconnect box, starter box, and at the motor can cause shock, burns, or death. Disconnect and lock out power supply before servicing! Keep all electrical component covers closed and securely fastened during Edger operation.



WARNING! Consider all electrical circuits energized and dangerous.

WARNING! Disconnect and lock out power supply before servicing! Failure to do so may result in serious injury.

WARNING! Never assume or take the word of another person that the power is off; check it out and lock it out.

WARNING! Do not wear rings, watches, or other jewelry while working around an open electrical circuit.



IMPORTANT! The Edger is equipped with two emergency stop buttons: one at the front, second at the rear control panel. They are used to immediately stop the motor and/or the Edger in hazardous situations. The e-stop buttons should always be in proper working condition.

Keep Safety Labels In Good Condition



IMPORTANT! Always be sure that all safety warning decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact Wood-Mizer Customer Service or the Wood-Mizer distributor in your area to order a new decal.

IMPORTANT! If replacing a component which has a safety decal affixed to it, make sure the new component also has the safety decal affixed.

Safety Labels Description

See table 2-1 See the table below for descriptions of the safety labels placed on the machine.

TABLE 2-1

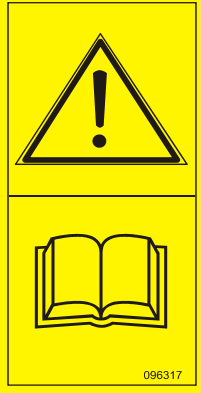

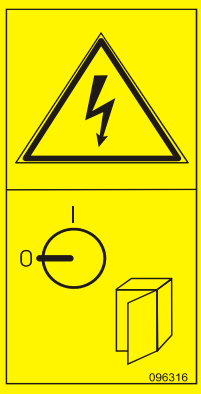
Decal View	Decal No.	Description
	096317	CAUTION! Read thoroughly the operator's manual before operating the Edger. Observe all safety instructions and rules when operating.
	099220	Close all guards and covers before starting the machine.
	096316	Do not open or close the electric box when the switch is not in the "0" position.

TABLE 2-1

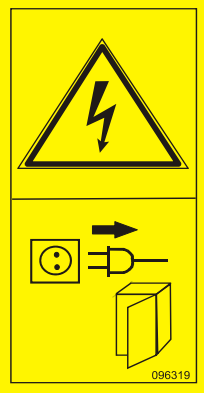







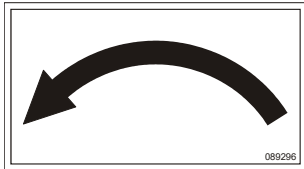
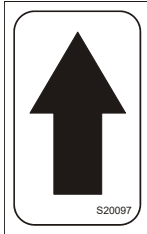
	<p>096319</p>	<p>Always disconnect the power cord before opening the electric box.</p>
	<p>099540</p>	<p>CAUTION! Toothed gear - keep persons away!</p>
	<p>524992</p>	<p>Decal, kickback hazard warning (pictogram)</p>
	<p>S12004G</p>	<p>Always wear safety goggles when operating the Edger.</p>

TABLE 2-1

	<p>S12005G</p>	<p>Always wear protective ear muffs when operating the Edger.</p>
	<p>501465</p>	<p>CAUTION! Always wear safety boots when operating the edger!</p>
	<p>501467</p>	<p>Lubrication point</p>
	<p>P85070</p>	<p>CE safety certification</p>
	<p>089296</p>	<p>Rotation direction</p>
	<p>S20097</p>	<p>Motor rotation direction.</p>

SECTION 3 OPERATION

3.1 Pre-Operation Check

Prior to operating the Edger; always perform these basic checks:

1. Make sure the Edger is level. Secure the edger to the ground. A concrete foundation and 16mm anchored bolts are recommended.



CAUTION! Make sure the edger is level before operation. Failure to do so can and will affect machine operation and wear life.

2. Make sure the tables are level with the rest of the Edger.

Be sure the anti-kickback fingers are in proper working condition.



WARNING! Always ensure that there is a sharp point on the anti-kickback fingers before each use of the Edger.

Be sure the anti-kickback fingers are free from obstruction and are in their downward position with the lever released. Failure to do so may result in serious injury.



WARNING! In case of a drive belt break, wait until all rotating parts are completely stop. Failure to do so may result in serious injury or death.



WARNING! If edger is equipped with an optional sawdust removal belt, use extreme care not to trip over it.

See figure 3-1.



WARNING! Make sure anti-kickback lever (A) are in working position (in the notch marked "B"). Failure to do so may result in serious injury.

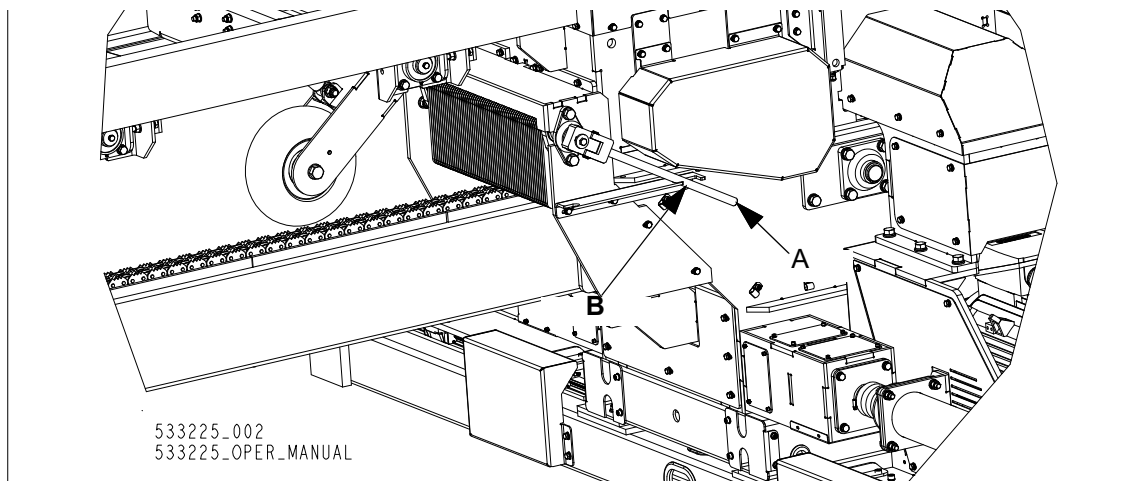




FIG. 3-1


3. Be sure all guards and covers are in place and secured.

 **DANGER!** Make sure all guards and covers are in place and secured before operating or transporting the Edger. Failure to do so may result in serious injury.

4. Also be aware that the blades are spinning whenever the motor is ON. Always turn off the motor to stop the blade whenever the Edger is not in use and ensure that all parts have stopped moving before removing any covers or guards.

 **WARNING!** Always shut off the motor and allow all moving parts to come to a complete stop before removing any guards or covers. Do NOT operate with any guard or cover removed.

WARNING! Always turn off the motor to stop the blade whenever the Edger is not in use Failure to do so may result in serious injury.

 **IMPORTANT!** If at any time you need to immediately stop the motor and/or Edger operation, press the Emergency Stop button located on the front and back control panel. To re-start the machine twist and release the emergency stop button.

See figure 3-2.

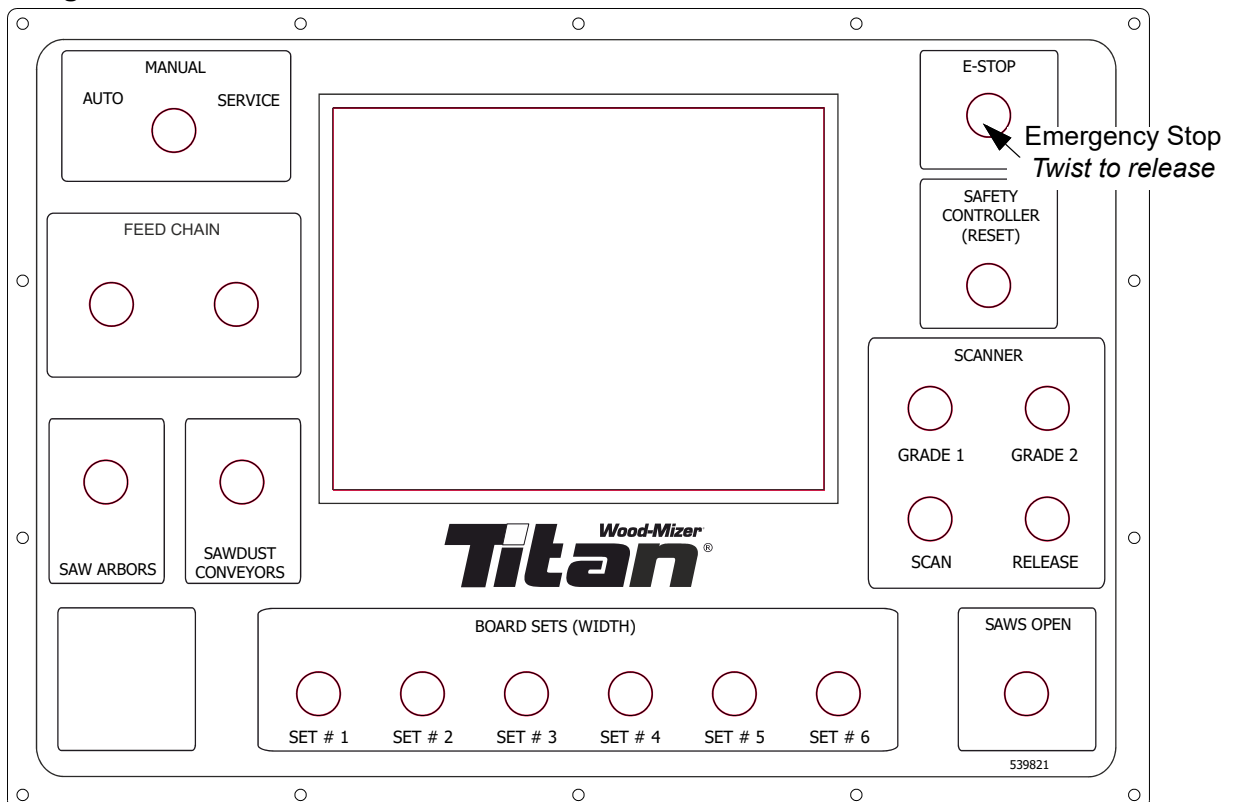


FIG. 3-2 EA3000 EMERGENCY STOP LOCATION

3.2 Control Overview

Control Panel, EA3000

See figure 3-3. The control panel includes touch display, buttons and switches. Its functions are described below.

See figure 3-4.

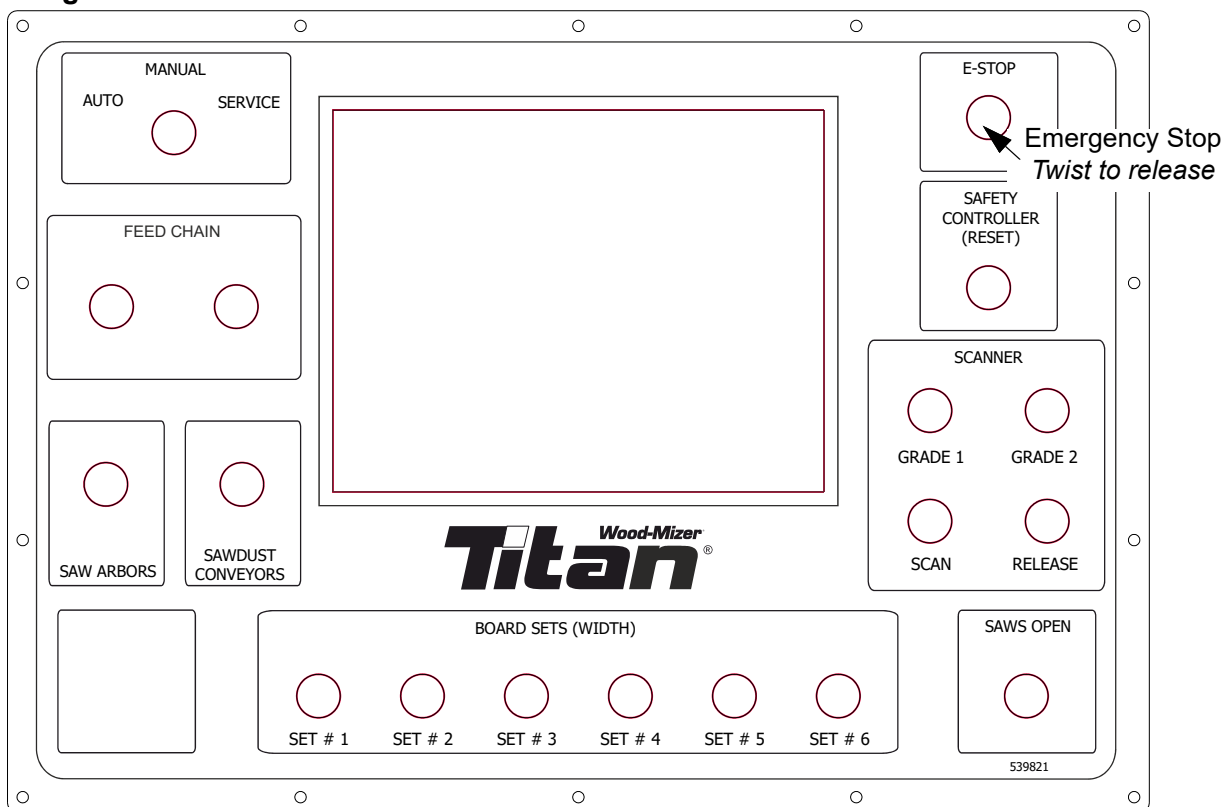


FIG. 3-4 SWITCHES ON THE CONTROL PANEL

1. MODE

AUTO - system is working in automatic mode. Log position, saw blades position and feed speed are set-up by the controller.

MANUAL - all parameters are set-up by the operator.

SERVICE - mode used by the service technicians.

2. FEED CHAIN

Starts and stops the feed chain. Press the "I" button to turn on the feed chain in forward direction. STOP "0" button stops the feed chain.

3. SAW ARBORS

Buttons allow to start (using white button) and stops (using black button) the saw blades.

4. SAWS OPEN

Allow to move the saw blades to maximal width.

5. BOARD SETS (WIDTH)

Allows to pre-set 6 values of the board width to the buttons form 1 to 6.

6. EMERGENCY STOP

Push the emergency stop button to stop the blade and the track feed motors. Turn the emergency stop clockwise to release the stop. The machine will not restart until the emergency stop is released.

7. SAFETY CONTROLLER (RE-SET)

Resets the safety controller. Turns on the control system.

8. SCANNER

Grade 1 - activates controller algorithm for grade sawing (sawing technique which maximize the yield).

Grade 2 - activates controller algorithm for cutting the material to dimensions suitable for pallet industry.

Scan - forces board scanning in manual mode.

Release - forces releasing the boards from scanning area.

3.3 Edger Setup



IMPORTANT! Before starting to use the Edger you have to meet the following conditions:

- Set up the Edger on firm, level ground.
 - Under roof, the Edger should always be operated with the sawdust collection system.
 - The edger must not be operated outdoors when it is raining/snowing and in case of rain/snow the edger must be stored under a roof or indoors.
 - The machine can be operated in temperature range from -15° C to 40° C only.
 - Illuminance at operator's position must be 300lx.¹
- Have a qualified electrician install the power supply (according to EN 60204 Standard). The power supply must meet the specifications given in the table below.

3-Phase Volts	Fuse Disconnect bezpiecznikowy	Recommended Wire Size
400 VAC	C100	4 x16mm ² , up to 15 m long

TABLE 3-1



IMPORTANT! It is required that a 30mA Ground Fault Interrupter (GFI) be used.



IMPORTANT! When starting the machine for the first time, check that blade rotation direction is as indicated by the arrow located on the blades covers. If the rotation direction is incorrect, invert the phases in the phase inverter in the power socket (electric box). Setting the phases in the phase inverter correctly will ensure correct rotation directions of all sawmill motors.

- The Edger can be lifted using the forklift or crane. The forklift or crane must be rated for at least 3000kg (4409lb.). Attach four ropes (rated for 1000kg each) of equal length to the lifting

¹ The light source can not cause stroboscopic effect. (PN-EN 12464-1:2012)

brackets shown below.

See figure 3-5.

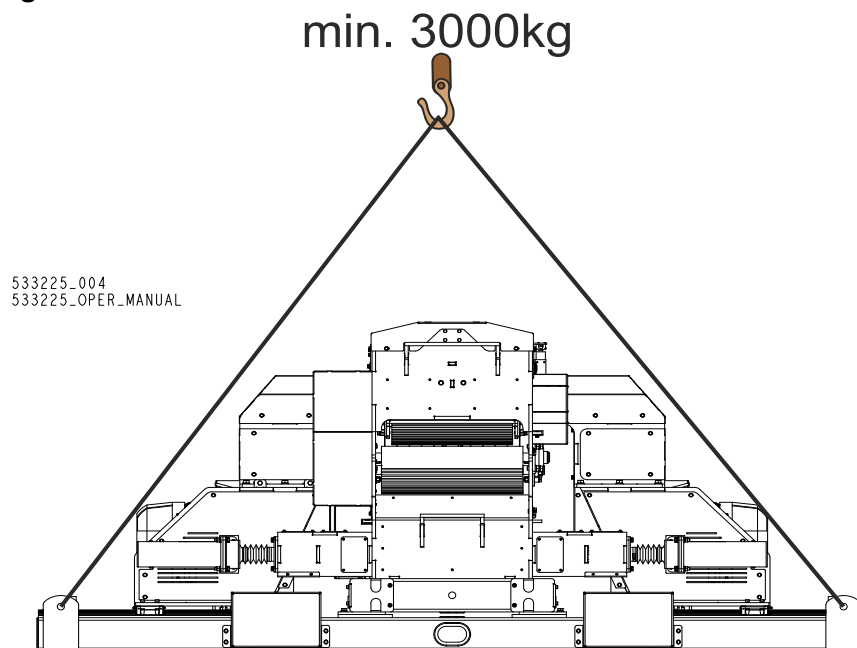


FIG. 3-5

Tables and Saw Blades Alignment

- Level the Edger body in length and width directions using spirit level.
- Level the infeed and outfeed tables in length and width directions using spirit level.
- Mount two string brackets (A) supplied to the front end and back end of the feed tables. Attach the string (B) to the brackets. Make sure that the spindle on the bracket is set in the middle and the distance (C) is the same on both brackets.

See figure 3-6.

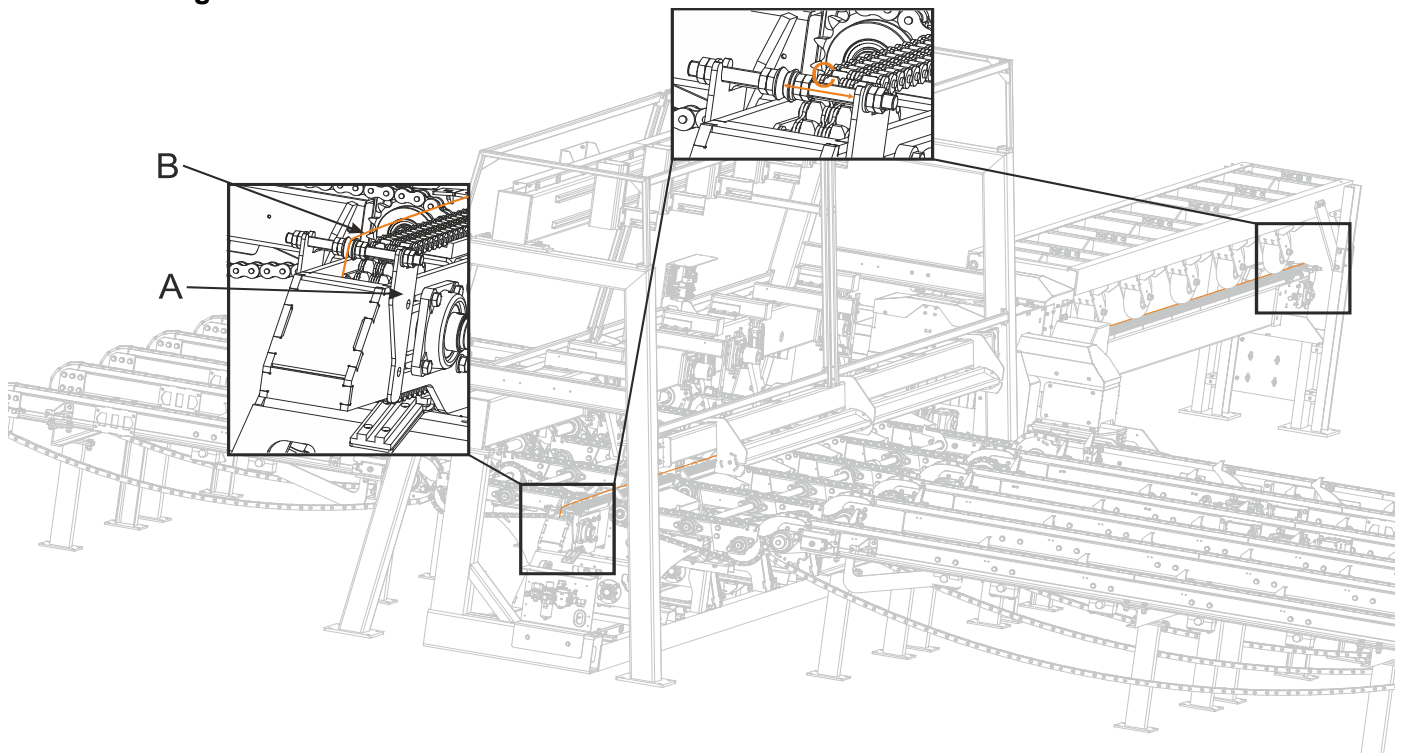


FIG. 3-6

- Adjust the infeed and outfeed tables in horizontal plane. Check the distances between the string and edge of the feed chain marked "A" and "B" in four places marked on the drawing below. Move the end of infeed and/or outfeed table so all four dimensions are equal. After that check the distance between saw blades and the string marked as "C" and "D". These distances should be the same.

See figure 3-7.

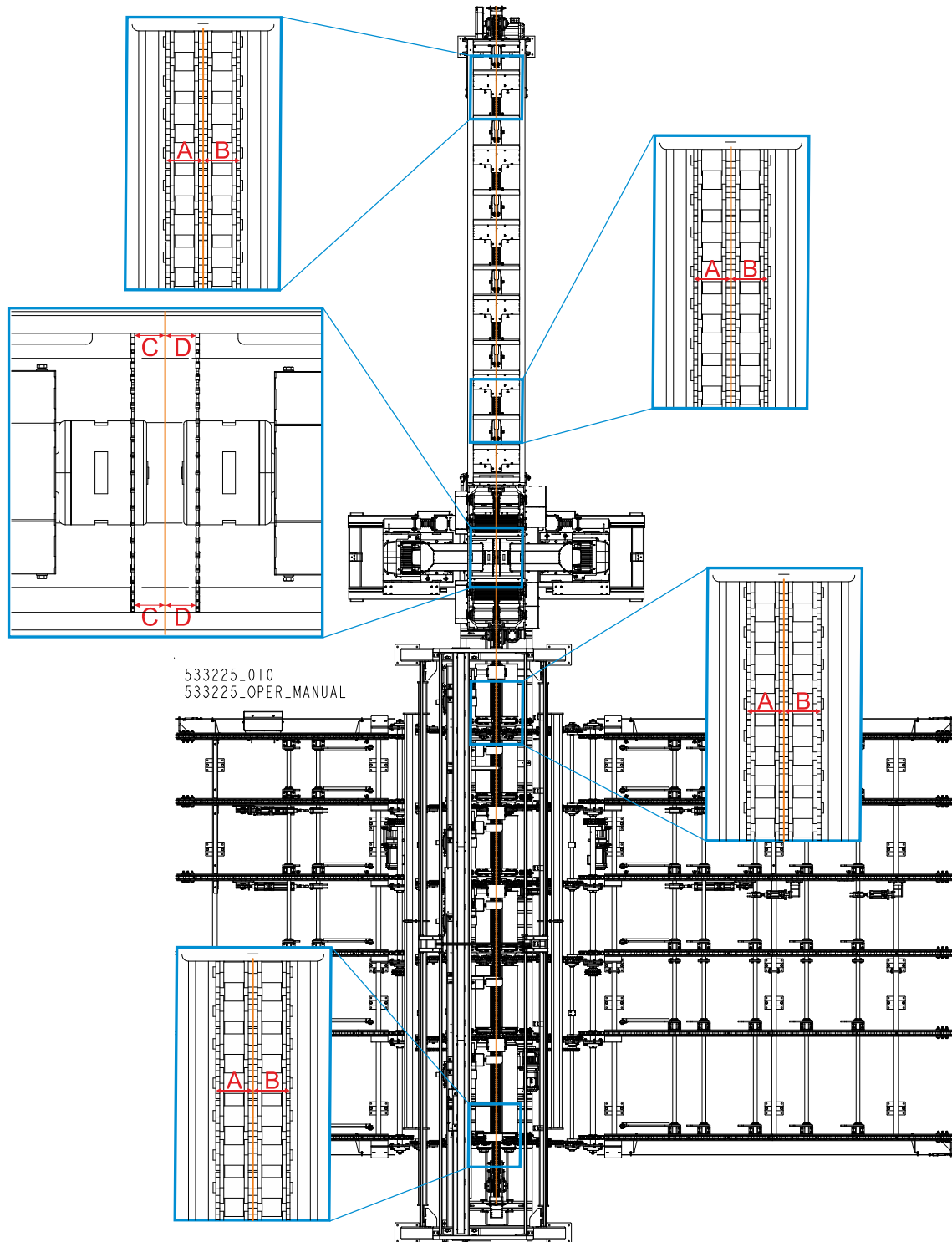


FIG. 3-7

3

Operation

Tables and Saw Blades Alignment

- If the distances “C” and “D” are not the same, you need to re-adjust the moving arbor. To do this, loosen six mounting bolts “E” and adjust the moving arbor using bolts “F”.

See figure 3-8.

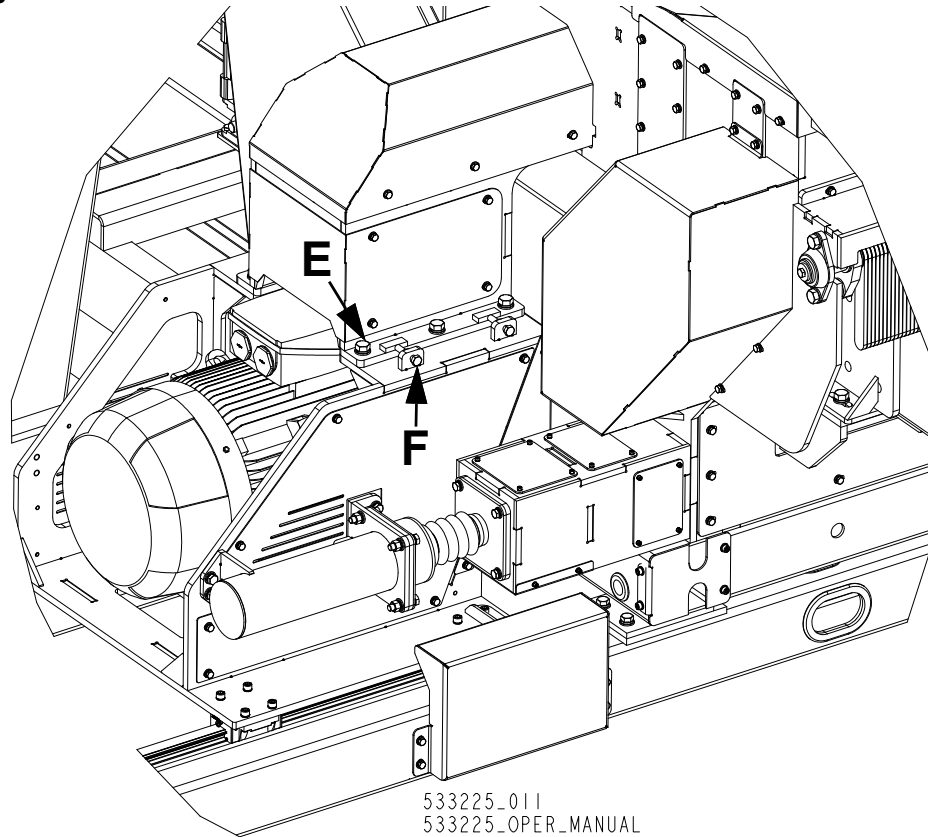


FIG. 3-8

- Adjust the infeed and outfeed tables in vertical plane. Check the distances marked below as “A”, “B”, “C”, “D”, “E” and “F” between the string and edge of the feed chain teeth. All distances should be the same. Place the shims under the legs of the infeed and/or outfeed table if necessary.

See figure 3-9.

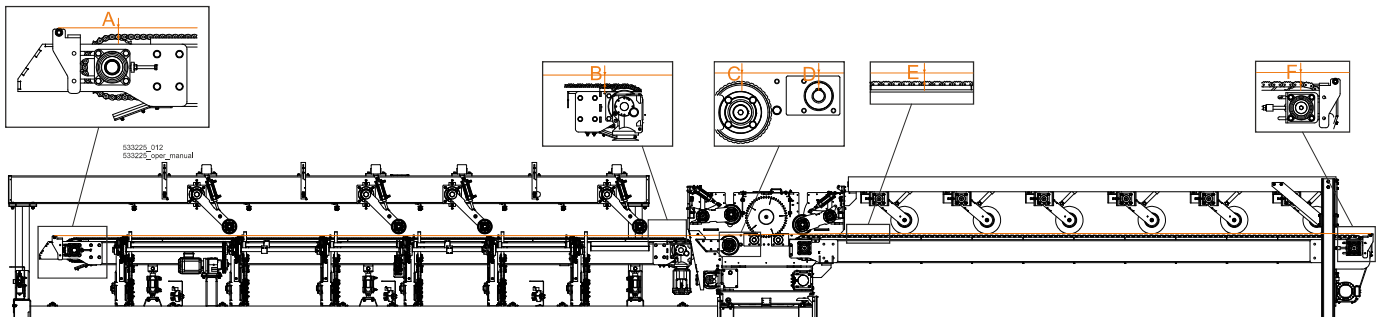


FIG. 3-9

- Check if the hold-down rollers on the infeed table are perpendicular to the table. Measure the distances marked below as “A”, “B”. They both should equal 12mm. If not, use the adjustment bolts “C” to re-adjust the roller.

See figure 3-10.

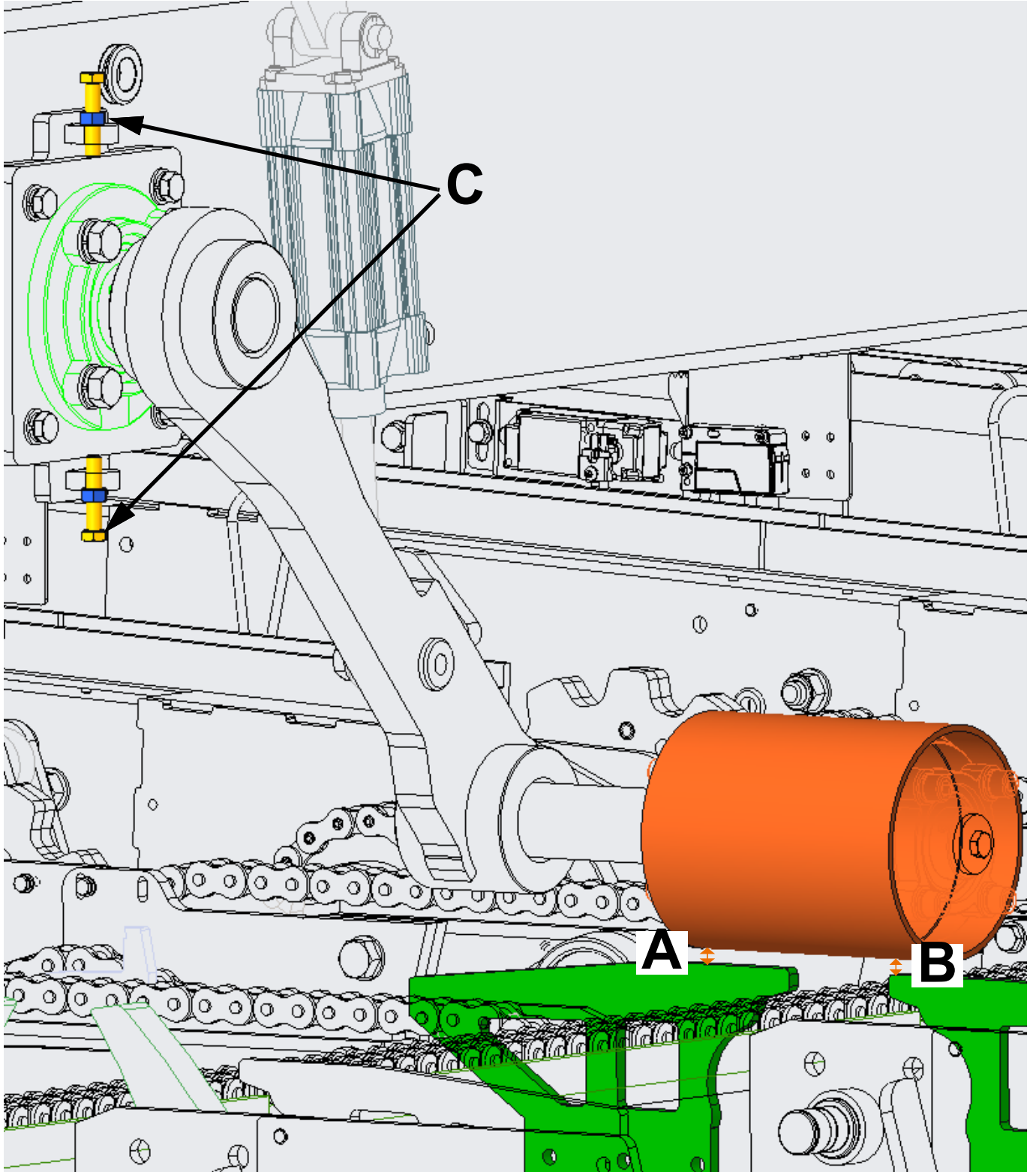


FIG. 3-10

3

Operation

Tables and Saw Blades Alignment

- Check if the hold-down rollers “A” on the infeed table are in line with the feed chain. If necessary, use the adjustment bolts “B” to re-adjust the roller.

See figure 3-11.

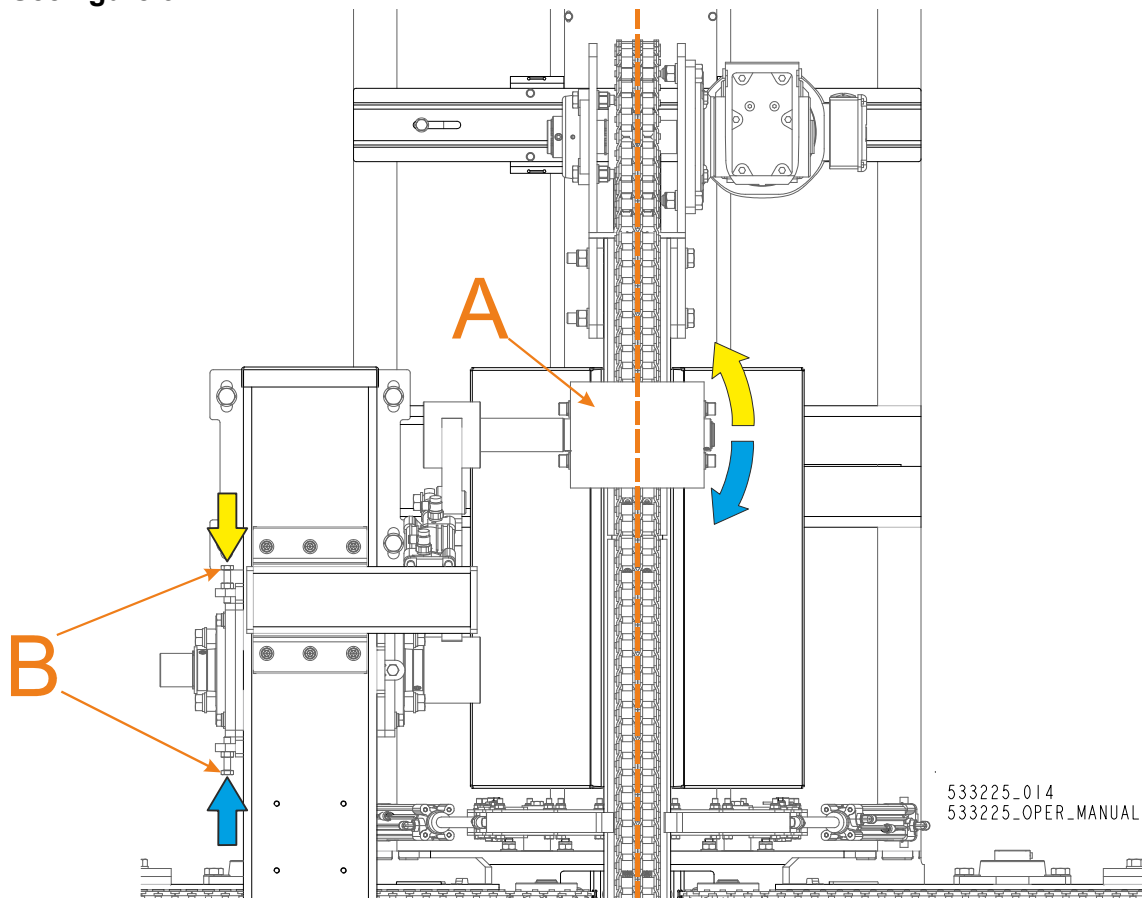


FIG. 3-11

3.4 Machine Start



DANGER! Before starting the machine, perform these steps to avoid injury and/or damage to the equipment:

- Close the blade housing covers and replace any guards removed for service.
- Check all conveyors table and remove all loose objects such as tools, wood, etc.
- Make sure all persons are a safe distance from the machine.
- Check that the emergency stops are released.

NOTE: The machine will not start if either of the emergency stops is on.

Before starting the blades, check that the main power switch on the electric box is on.

See figure 3-12.

1. To turn the Edger's power on, turn the main switch to the ON position.
2. Press the SAFETY CONTROLER (RESET) button to turn on the controller.
3. Choose the control mode using AUTO or MANUAL button.
4. Choose the Scanner mode using GRADE 1 or GRADE 2 button.

- Start the blade motors. To do this, use SAW ARBORS button.

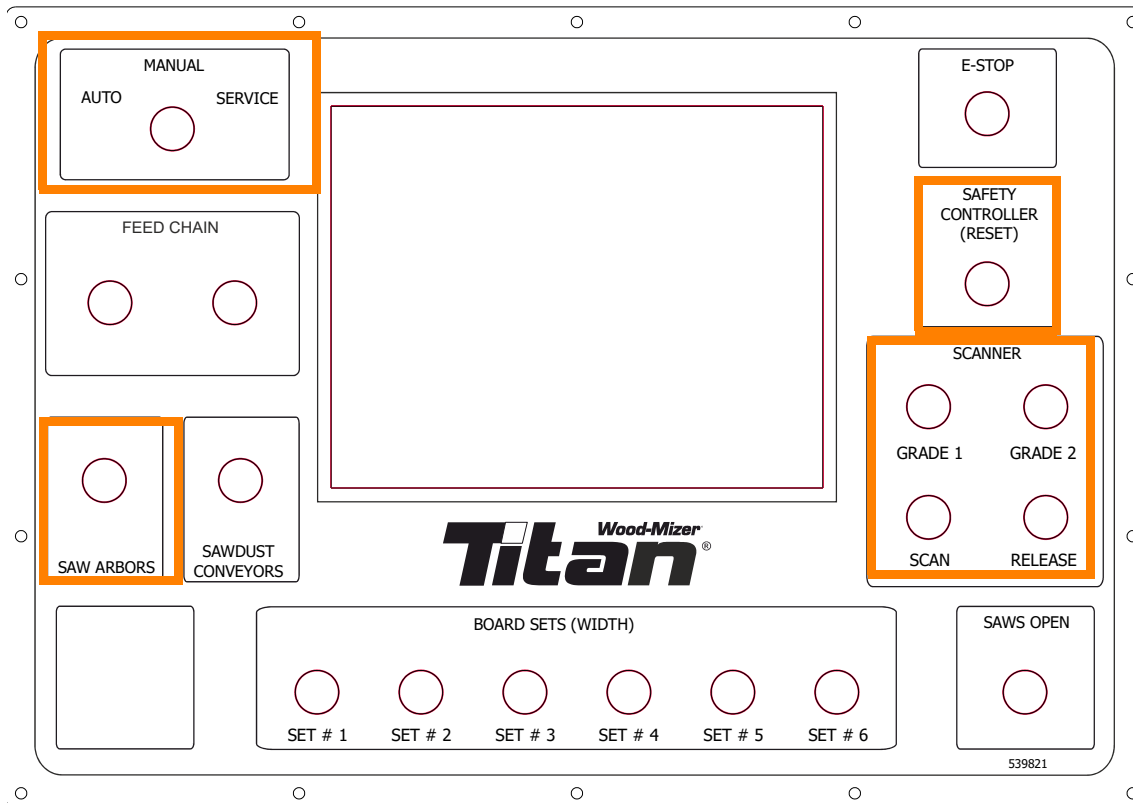


FIG. 3-12 SWITCHES ON THE CONTROL PANEL

To stop the blade motor, press the “0” button shown on the figure above. The motor also may be stopped by pushing the emergency stop button.

When working in MANUAL mode, the speed at which the feed chain is working is adjustable by dial located on the control panel, allows the operator to adjust the feed rate from 0 to ca. 678 ft per minute.

Turn the switch clockwise to increase the feed rate, counterclockwise to slow the feed rate down.

Factors determining what feed rate you can use include:

- Material thickness.
- Hardness of material to be cut. Some woods that are seasoned or naturally very hard will require slower feed rates.
- Sharpness of blades. Dull or improperly sharpened blades will require slower feed rates than sharp and properly maintained blades.

SECTION 4 MAINTENANCE AND ALIGNMENT (EDGER)



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, set the main switch in the "0" position and disconnect the power cord.



WARNING! Always shut off the motor and allow all moving parts to come to a complete stop before removing any guards or covers. Do NOT operate with any guards or covers removed.



WARNING! Disconnect air supply and release compressed air from the air system before servicing the edger! Failure to do so may result in serious injury.

4.1 Lock-Out Procedure

“Lock-Out”, or “Lock-out Tag-out” are terms that refer to procedures taken to prevent the unexpected start-up, or other release of energy by a machine, whenever anyone is required to remove or bypass safety devices, or whenever anyone is required to place part of his/her body in a hazard area.

In almost all jurisdictions, it is required that owners of industrial equipment establish and post lock-out procedures. Know and use the lock-out procedures of your company or organization. In the absence of such posted procedures, use the following.

Whenever work is to be performed on a machine, which requires bypassing of safety devices, or placement of part of anyone’s body in a hazard area *and* in the absence of posted company procedures, the following steps shall be taken:

1. Position and support the head in a suitable position for the work to be done (for machines with movable heads).
2. Operator shuts down the machine.
3. The supervisor in charge of the machine must be informed of the intention to lock-out the machine.
4. The main power disconnect switch must be turned off, and locked in the off position by means of a padlock. The person performing the work on the machine must keep the key for this padlock. If more than one person is performing the work on the machine, then a multiple lock hasp shall be used, and each person shall apply his or her own lock to the hasp.
5. Prior to starting any work on the locked-out machine, the supervisor shall attempt to start the machine to ensure that the lock-out device provides adequate protection. Operating control must be reset to the “OFF” position after this test.
6. Work on the locked-out machine may now proceed.

4.2 General Maintenance Schedule

See Table. 4-1.

Item	Action	Frequency
Outfoxed section	Remove slivers	4 times per shift
Sensors	Clean, check	4 time per shift or as needed
Sawblades	change	As needed
Entire machine	clean and inspect	1 time per shift
Saw spindles	clean and inspect	1 time per shift
Electrics and motors	clean and inspect	1 time per shift
Air pressure	Check 6 bar	1 time per shift
Pneumatics	Check for leaks, drain filters	1 time per shift
Drive chains	inspect and lubricate	every 4 shifts
Hold down arms	check alignment	every 4 shifts
All bolts and grub screws	check and tighten	1 time per month
Gearboxes	Oil level	2 times per month
Spindle bearings	Grease	month (DO NOT OVERGREASE)
Electric connections	check all tight	every 3 months
Rollers	check for wear and play	every 3 months
Saw spindle	Check for alignment and wear	every 6 months
Pneumatic cylinders and valves	Full service	Annual shutdown

TABLE. 4-1

4.3 Common Troubleshooting Suggestions

See Table. 4-2.

Problem		Probable Cause		Solution	
1.	Blade stalls in cut	1a	Feed rate too high	1a	Decrease feed rate
		1b	Blade blunt	1b	Change blade
		1c	Blade set too small	1c	Increase blade set
2.	Saws start but feed will not run	2a	Potentiometer set on 0	2a	Set Potentiometer
		2b	Feed inverter tripped	2b	Reset power
		2c	Feed jammed	2c	Unjam feed
3.	Blade vibrates excessively	3a	Blades not level	3a	Change blades
		3b	Damaged arbour bearings	3b	Change arbour bearings
		3c	Damaged saw spacers	3c	Repair saw spacers
4.	Machine vibrates excessively	4a	Arbor nut loose	4a	Tighten Arbor nut
		4b	Damaged arbour bearings	4b	Change arbour bearings
		4c	Damaged saw spacers	4c	Repair saw spacers
5.	Saws will not start	5a	Motor overload tripped	5a	Reset overload
		5b	Main Breaker tripped	5b	Reset main breaker
		5c	E-Stop depressed	5c	Reset E-Stop

TABLE. 4-2

4.4 Blade Drive Switches Alignment

To adjust the inner and outer extreme positions of either of the moving arbors, perform the following steps:

4.4.1 Inner Switch Alignment

1. Unbolt switches cover (A) using bolts (B):

See Figure 4-1.

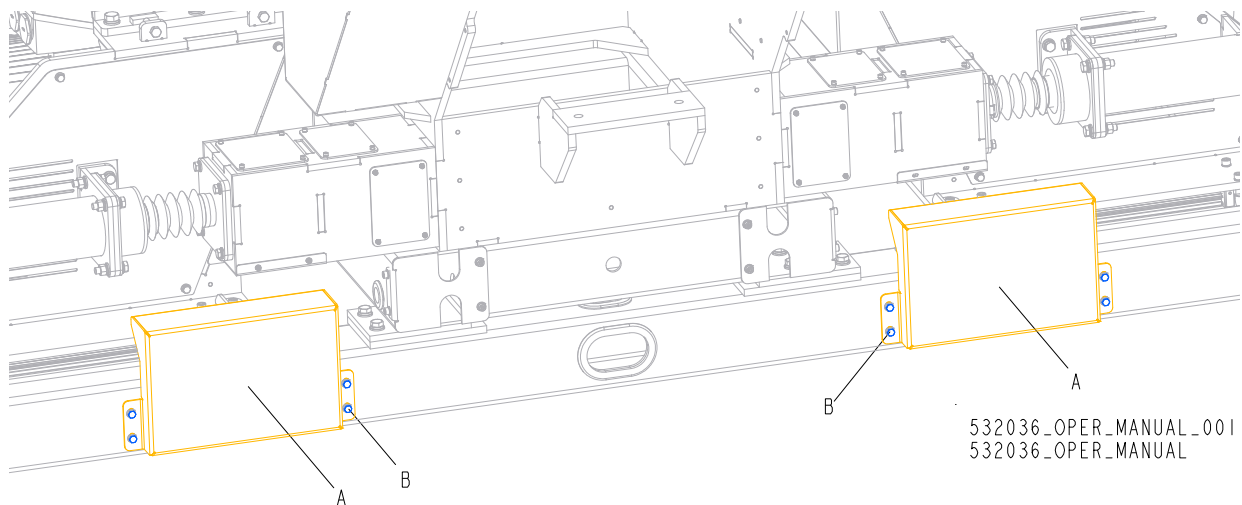


FIG. 4-1

See Figure 4-2.

2. Loose bolts (A)
3. Move out inner limit switch from trigger:
 - Move out the left inner limit switch mounting plate (B) from the trigger (C) to the right

- Move out the right inner limit switch mounting plate (D) from the trigger (E) to the left:

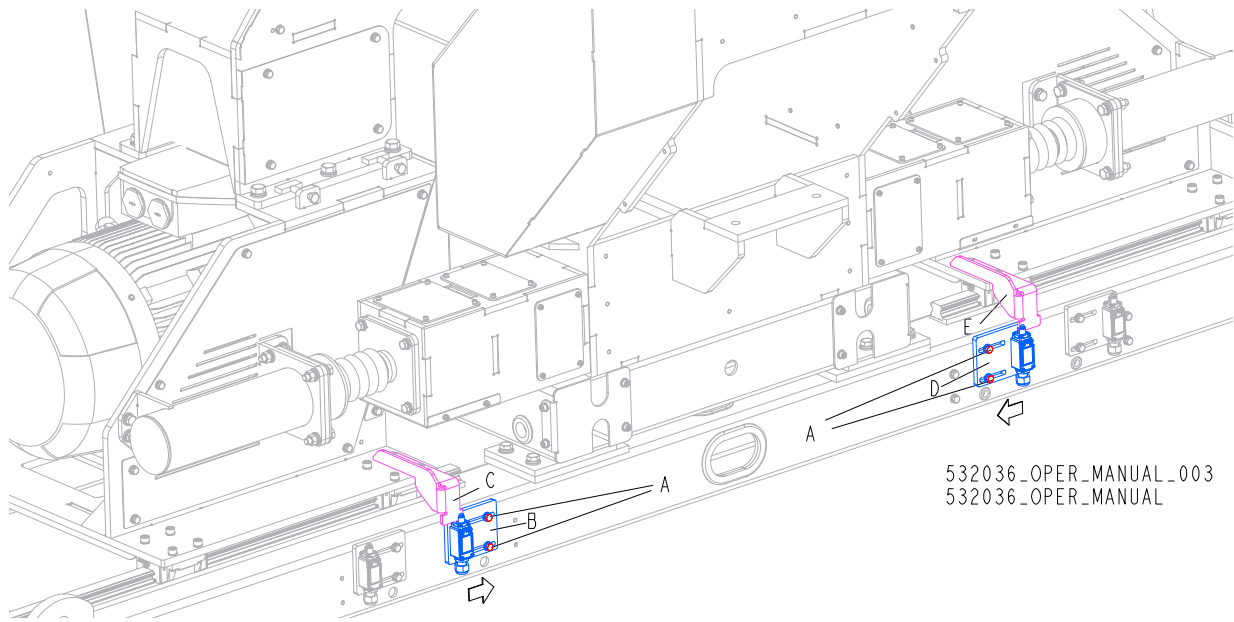


FIG. 4-2

4. Set the distance between blades and axis of the frame as shown on the picture below (all dimensions are in mm).

See Figure 4-3.

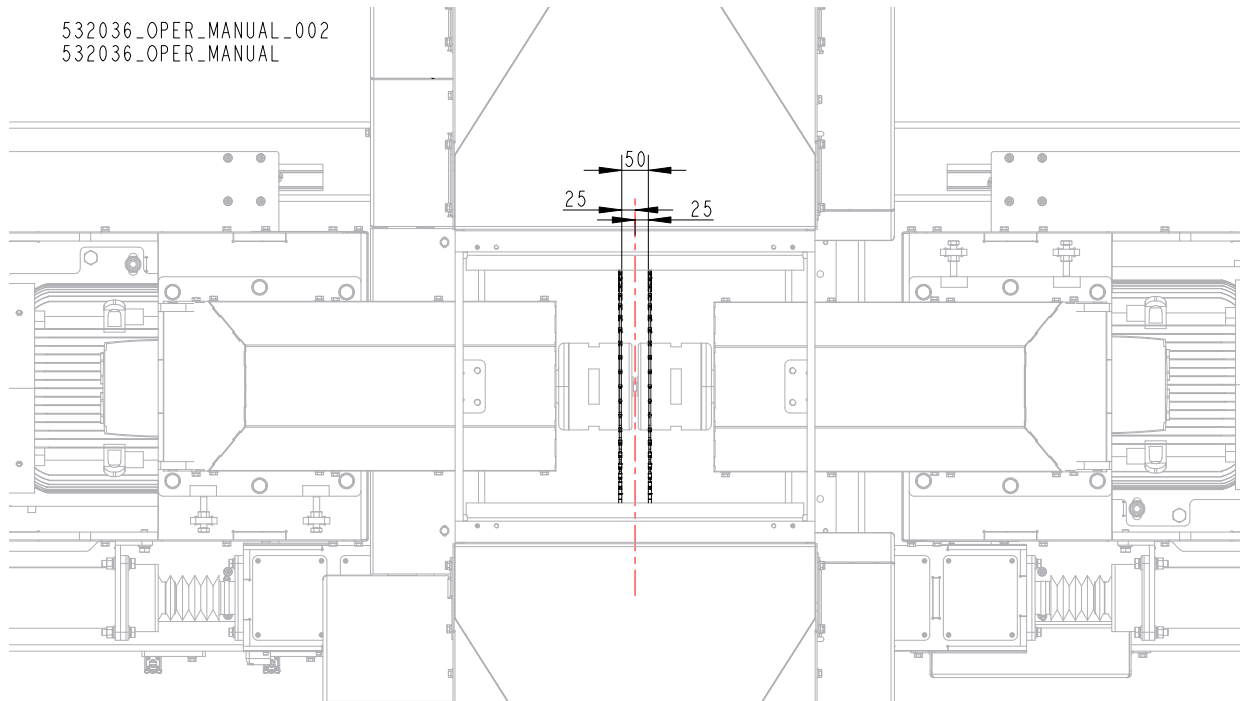


FIG. 4-3

5. Move the limit switch mounting plate towards the trigger until the limit switch is activated:

See Figure 4-4.

- Move the mounting plate (B) towards the trigger (C) until the limit switch is activated
- Move the mounting plate (D) towards the trigger (E) until the limit switch is activated:
- Tighten firmly the mounting plates

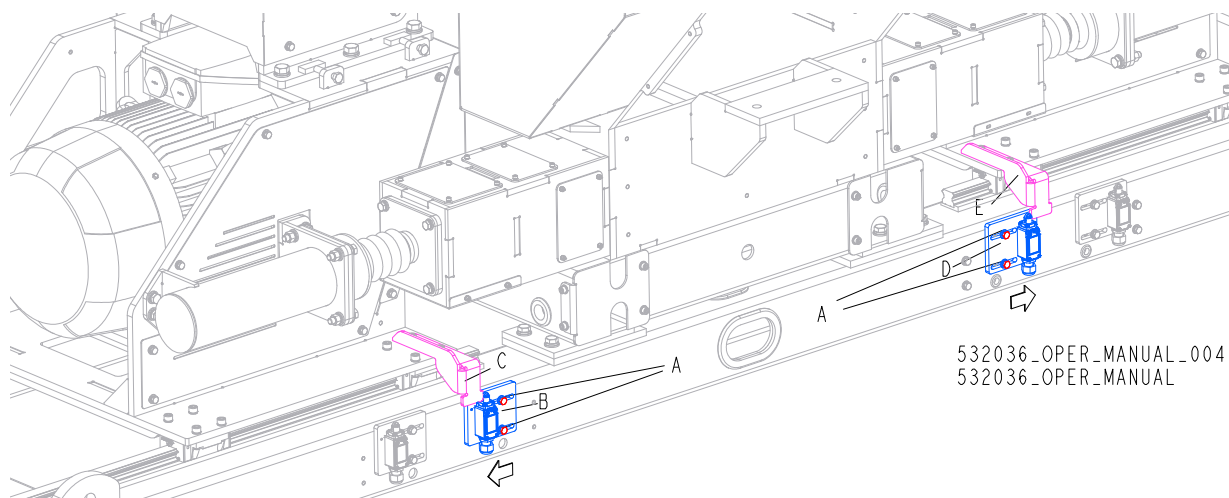


FIG. 4-4

6. Mount switches cover (A) using bolts (B) :

See Figure 4-5.

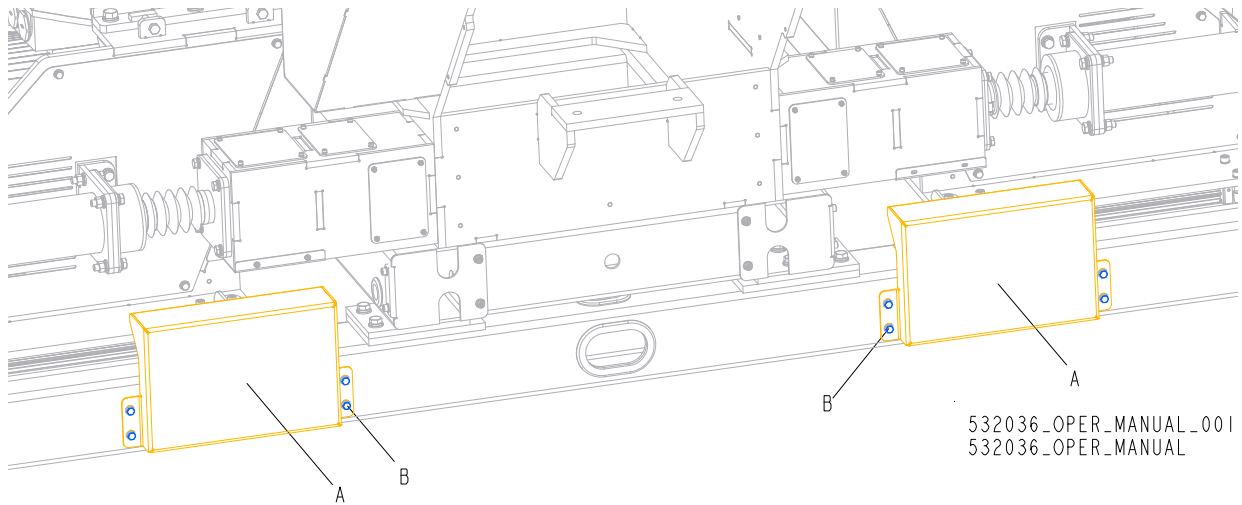


FIG. 4-5

4.4.2 Outer Switch Alignment

1. Unbolt switches cover (A) using bolts (B) :

See Figure 4-6.

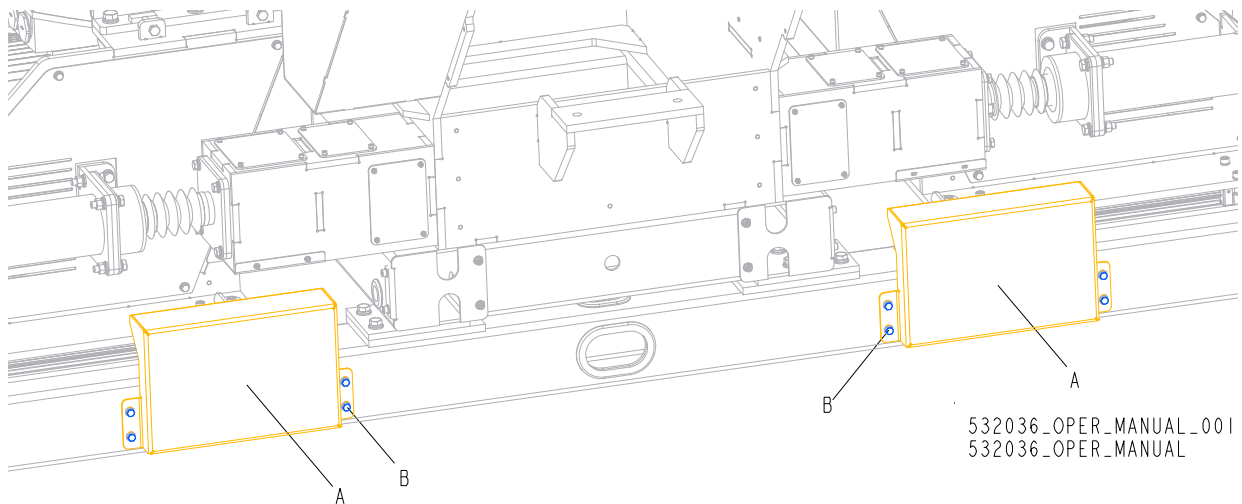


FIG. 4-6

See Figure 4-7.

2. Loose bolts (A)
3. Move out outer limit switch from trigger:
 - Move out the left outer limit switch mounting plate (B) from the trigger (C) to the left
 - Move out the right outer limit switch mounting plate (D) from the trigger (E) to the right:

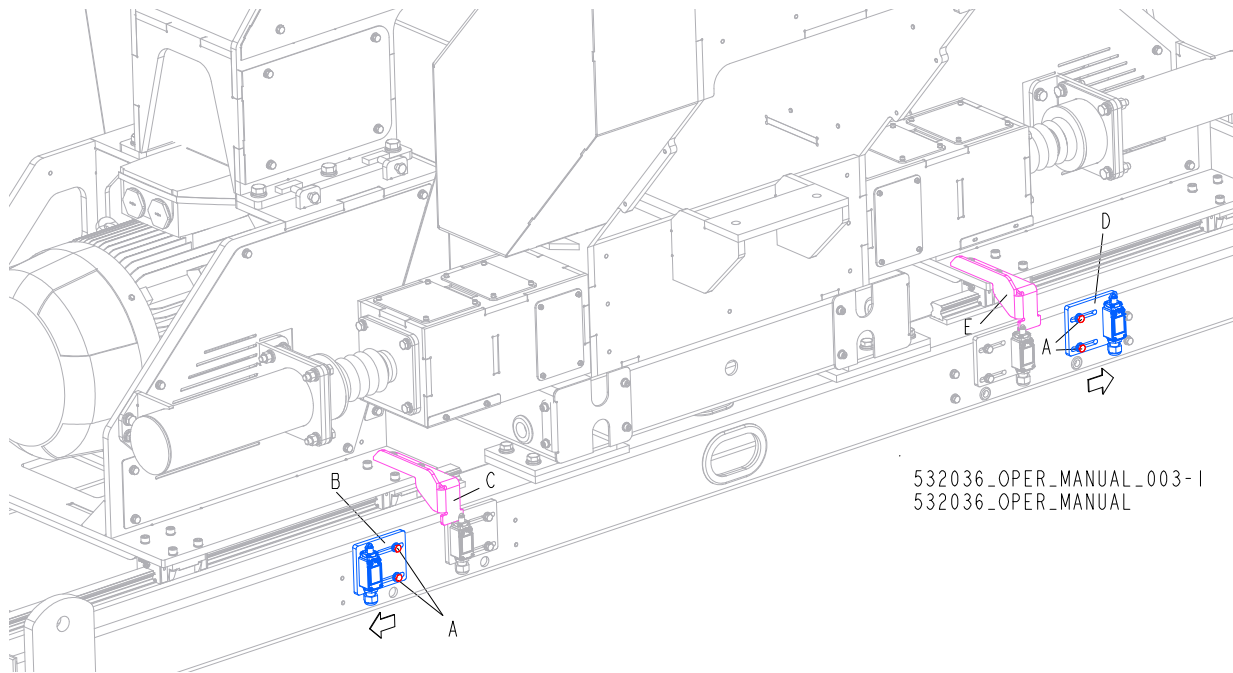


FIG. 4-7

4. Move the moving arbor out until the gap between the cover (A) and the side wall (B) is 5 mm.

See Figure 4-8.

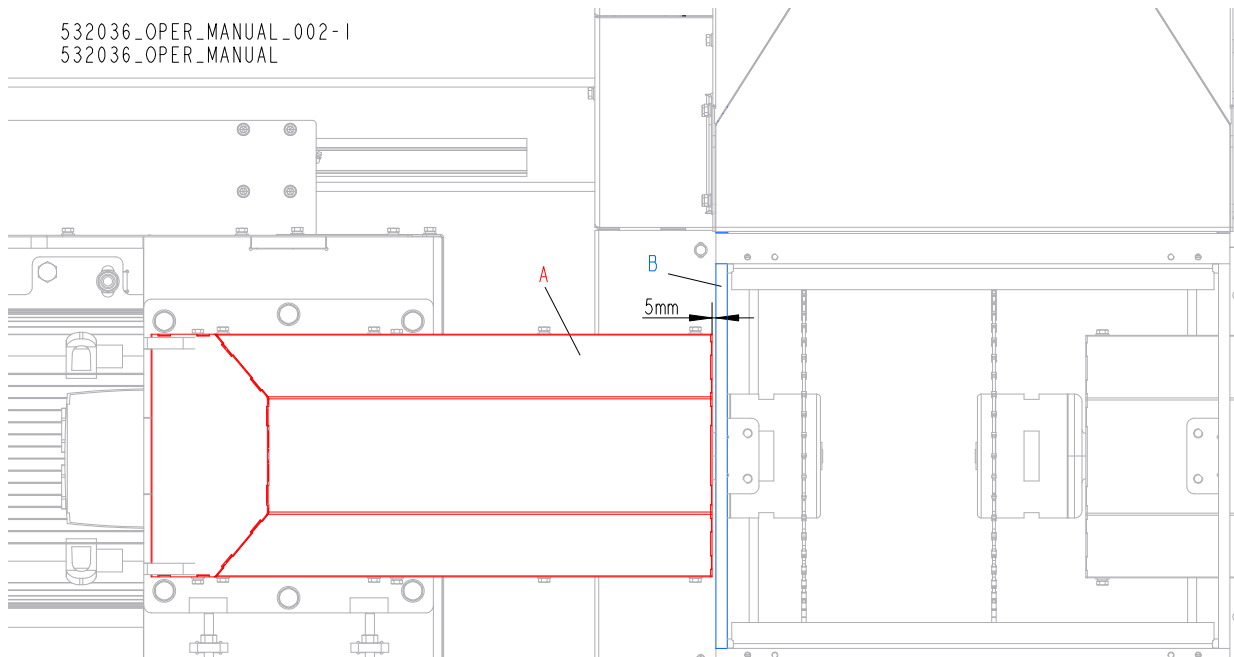


FIG. 4-8

5. Move the limit switch mounting plate towards the trigger until the limit switch is activated:

See Figure 4-9.

- Move the mounting plate (B) towards the trigger (C) until the limit switch is activated
- Move the mounting plate (D) towards the trigger (E) until the limit switch is activated
- Tighten firmly the mounting plates.

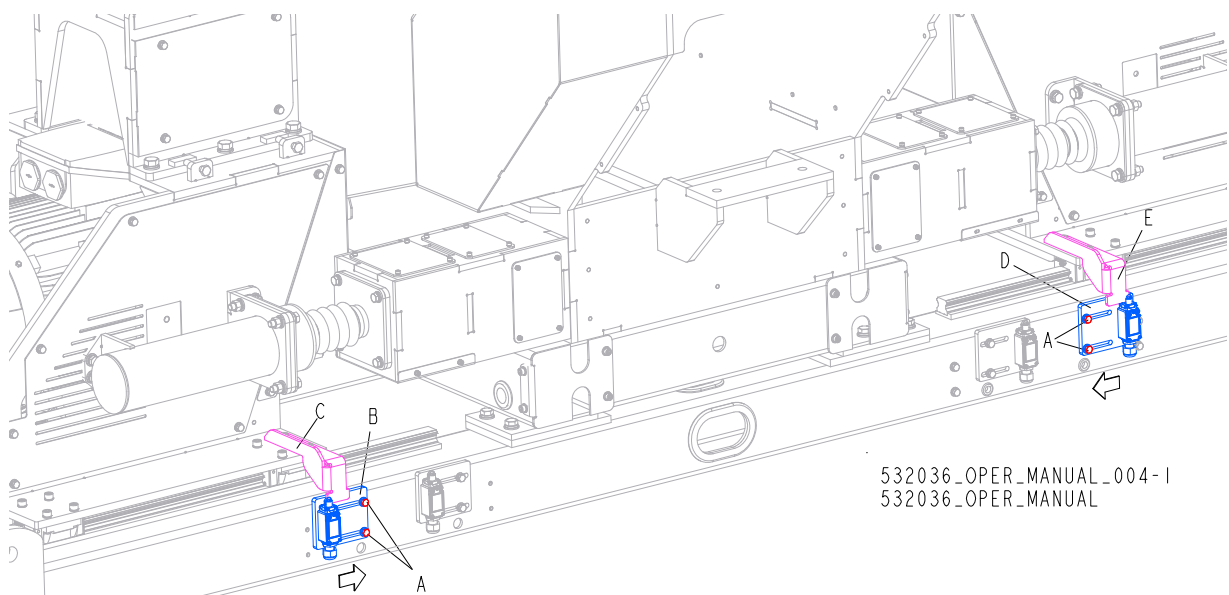


FIG. 4-9

4

Maintenance and Alignment (Edger)

Outer Switch Alignment

6. Mount switches cover (A) using bolts (B) :

See Figure 4-10.

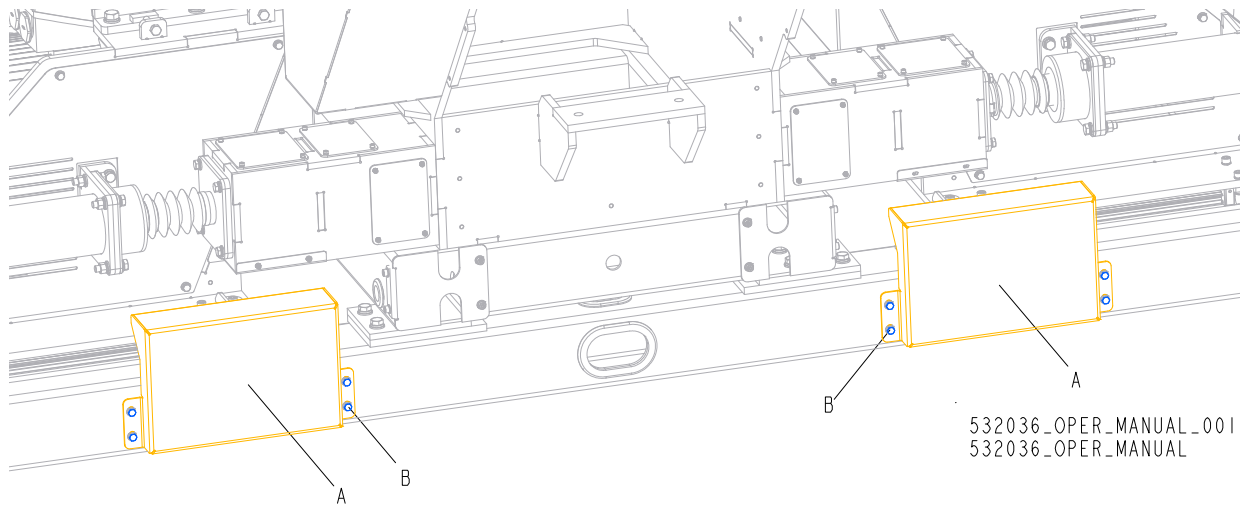


FIG. 4-10

4.5 Main Drive Belt Replacement

- 40 Check the new main drive belts tension after 40 hours of operation. Adjust the belts if necessary.
- 160 Check tension of the main drive belts every 160 hours of operation. Adjust the belts if necessary.

See Figure 4-11.

1. Move out the moving arbor.

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532036_OPER_MANUAL

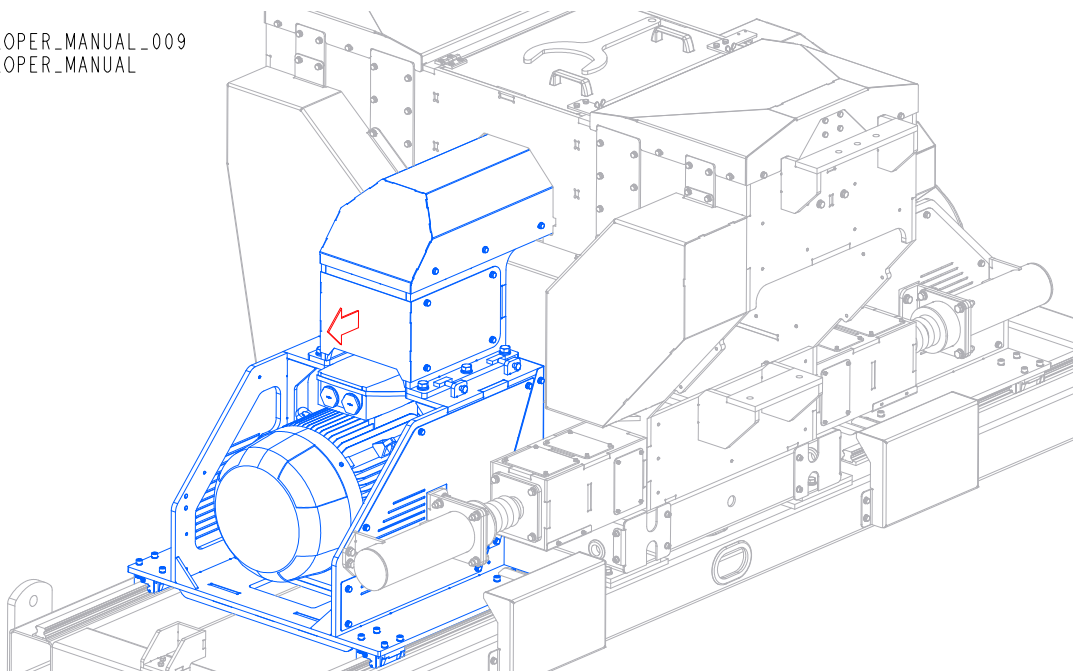


FIG. 4-11

4

Maintenance and Alignment (Edger)

Main Drive Belt Replacement

2. Unbolt fasteners (A) and remove the Covers (B).

See Figure 4-12.

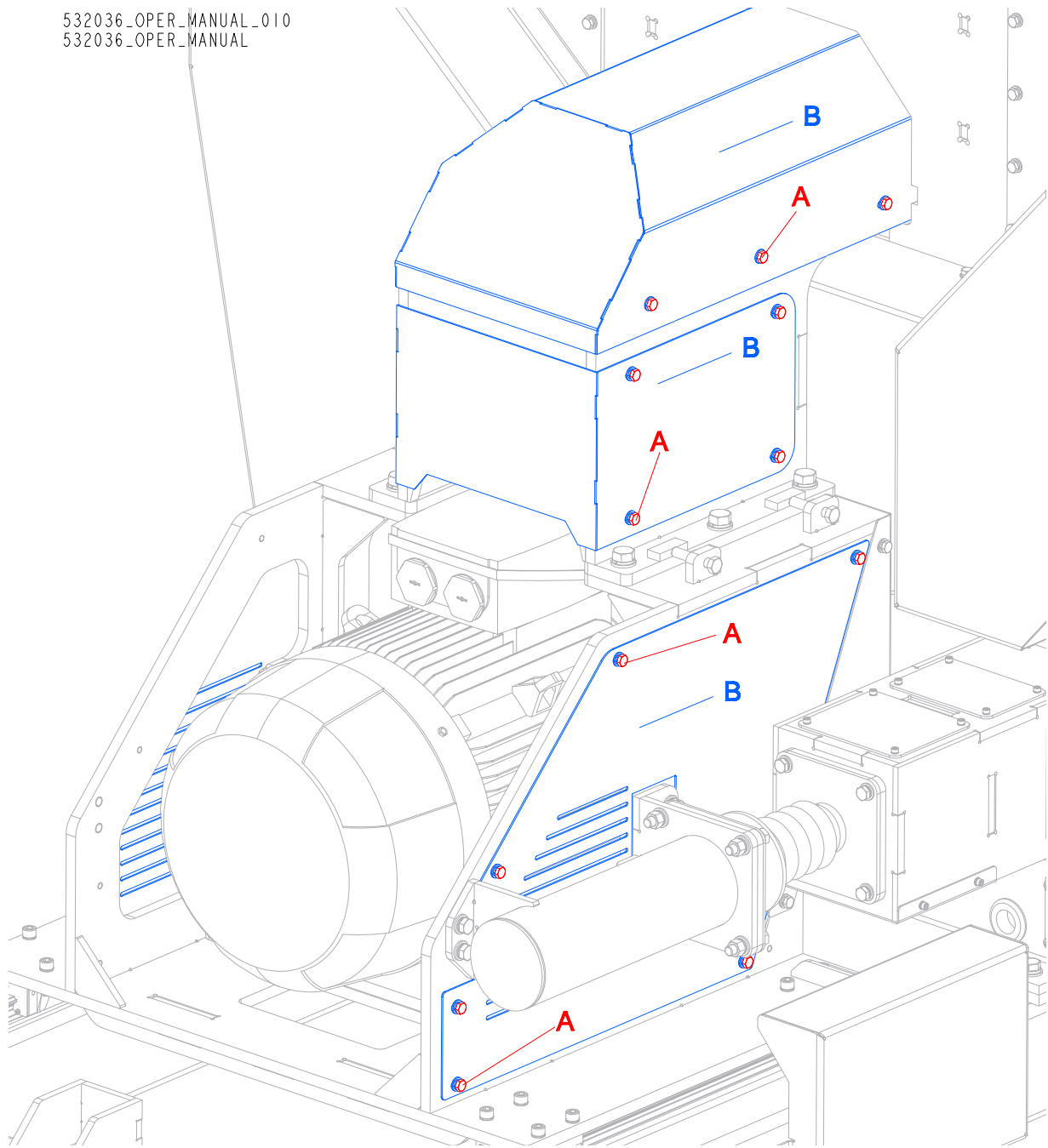


FIG. 4-12

See Figure 4-13.

3. Loosen nut (A)
4. Loosen bolt (B) to apply less tension to the driving belts.
5. Loosen bolts (C) of the bearing housings.

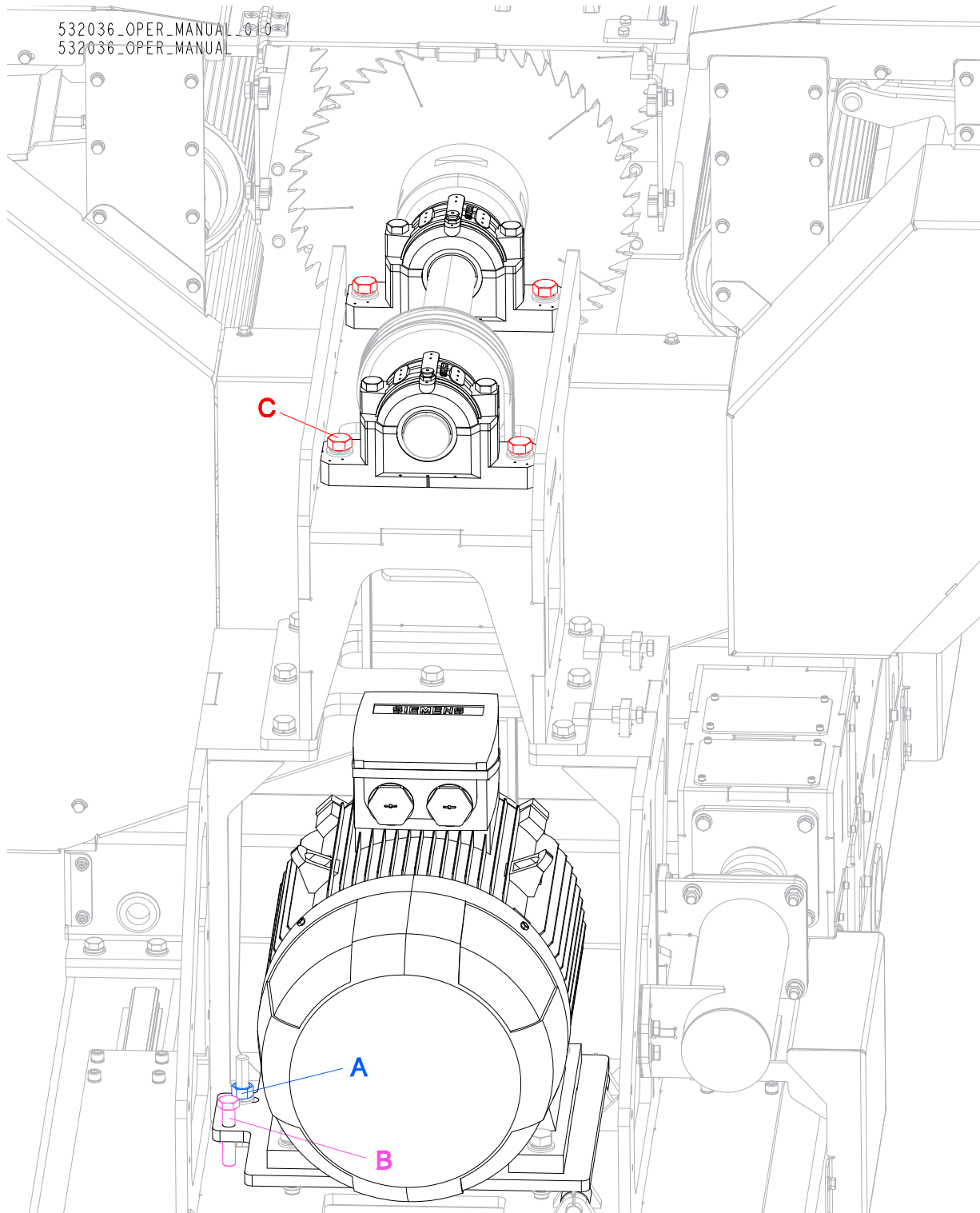


FIG. 4-13

See Figure 4-14.

6. Move up arbor assembly (A) to replace drive belts (B).

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532036_OPER_MANUAL

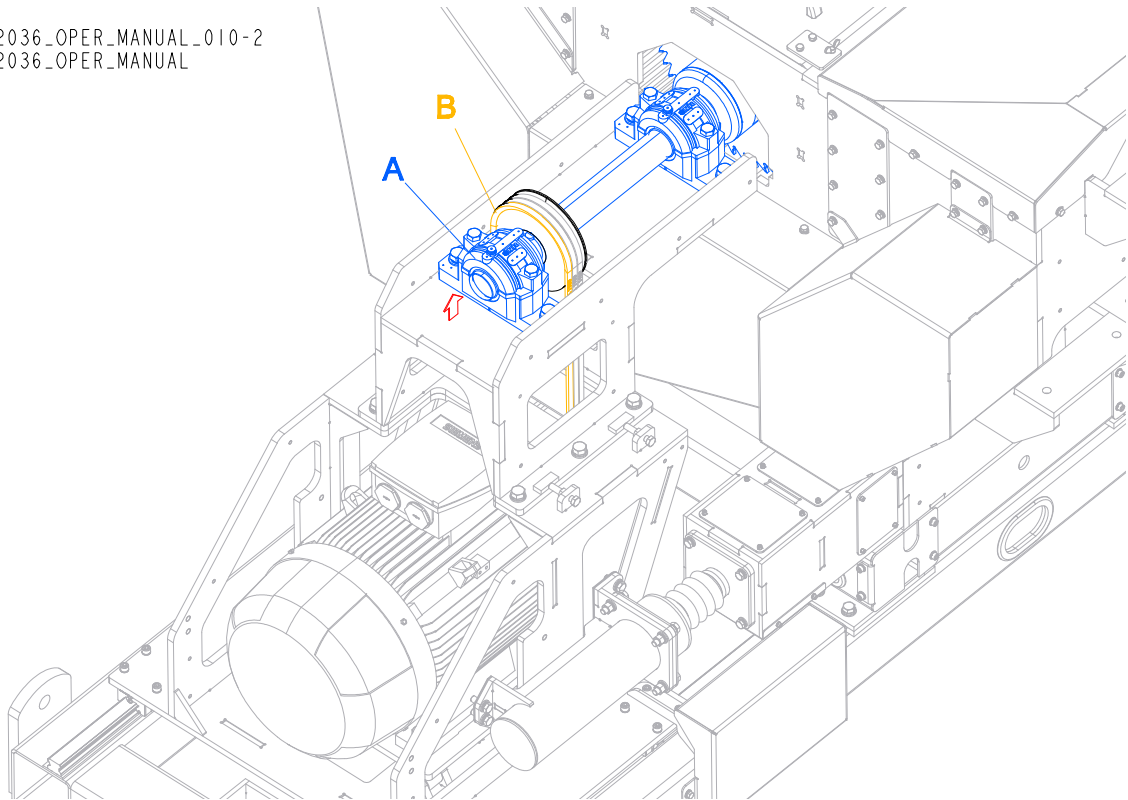


FIG. 4-14

See Figure 4-15.

7. Tighten bolts (C) of the bearing housings.

532036_OPER_MANUAL_010-1
532036_OPER_MANUAL

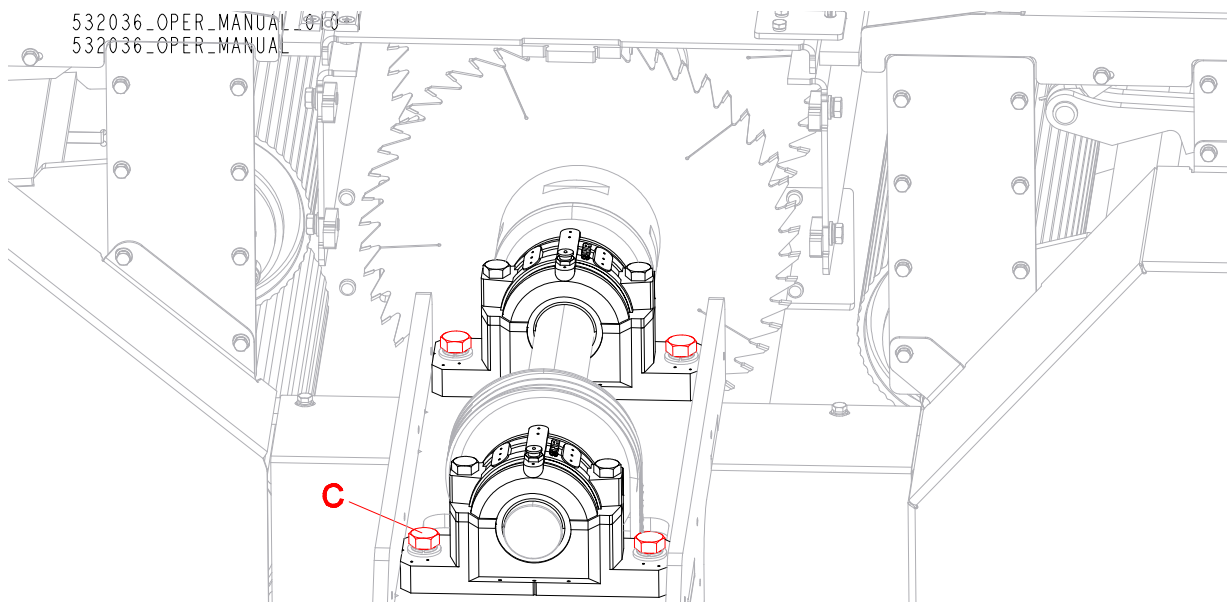


FIG. 4-15

8. Mount previously removed covers.
9. Adjust tension of the main drive belts. [See Section 4.8.1](#)

4.6 Adjusting the Edger Press Rollers

4.6.1 Adjusting the Infeed Press Roller

- To adjust infeed press roller (B), use the nut (A). Be sure the distance between rollers (B) is minimum **20 mm**.

See Figure 4-16.

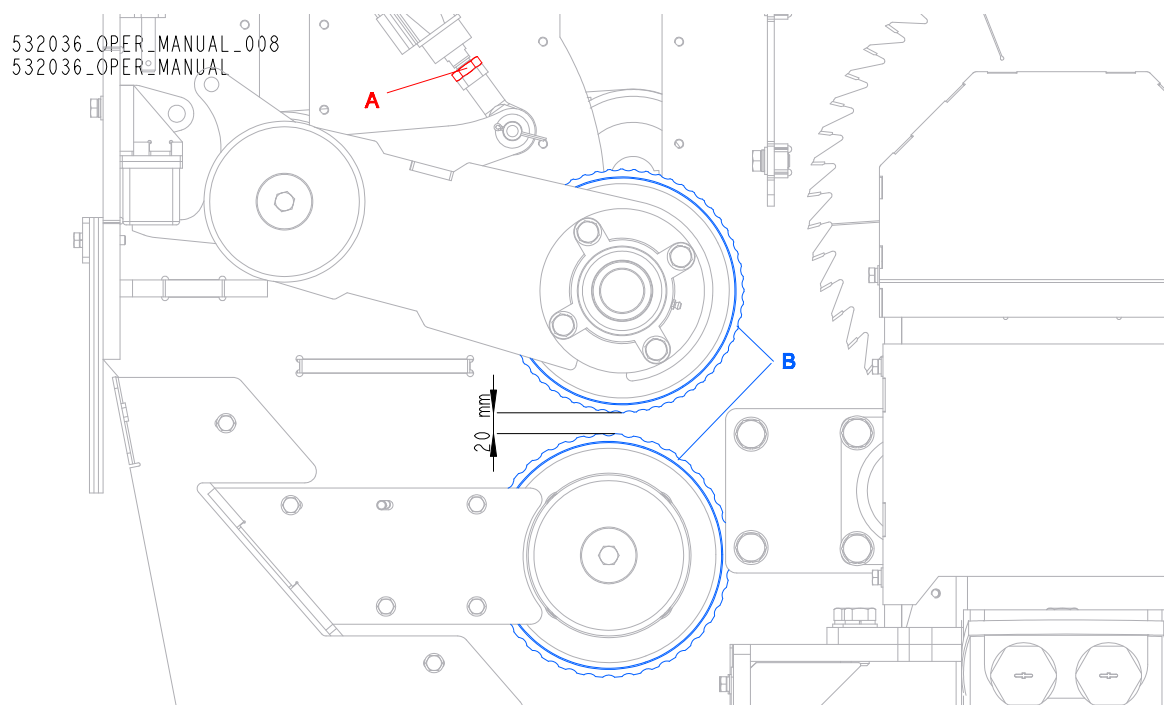


FIG. 4-16

4.6.2 Adjusting the Outfeed Press Roller

- To adjust outfeed press roller (B), use the nut (A). Be sure the distance between roller (B) and outfeed chain (C) is minimum **20 mm**.

See Figure 4-17.

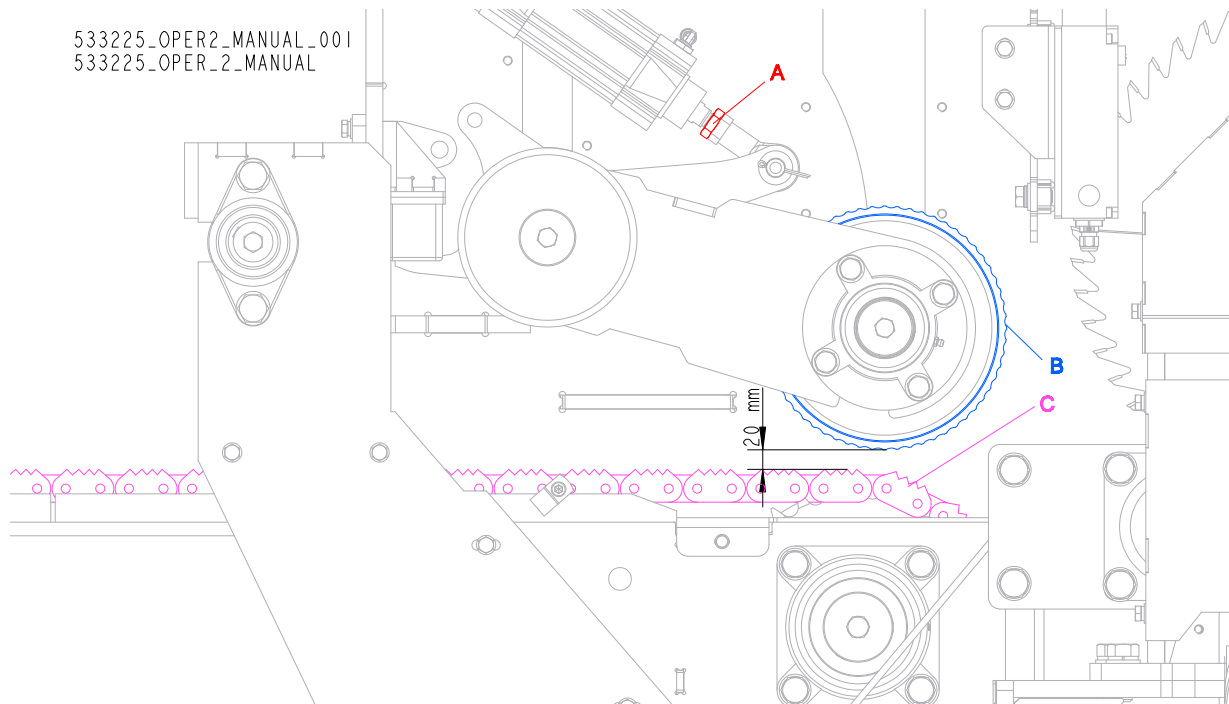


FIG. 4-17

4.7 Replacing the Blades

Replace the blades as necessary. Dull blades will cause the motors to work harder and will result in decreased cut quality and accuracy. Blade life will vary depending on maintenance of the machine, the operator, as well as species and condition of wood being sawn.

! DANGER! Before changing the blades, make sure all rotating parts have come to a complete stop and the motor is shut off completely. Turn the main switch to the "0" position and disconnect the power cord. Failing to do so can cause serious injury.

! WARNING! Always wear eye, glove and foot protection when handling the blades.

1. Move the blades all the way out (to the maximum cutting width)

See Figure 4-18.

2. Turn off the blade motors and wait until the solenoid interlock (A) is inactive. Then set the main switch in the "0" position and disconnect the power cord.

3. Unscrew fasteners (B)
4. Move the blade housing (C) to access the blades

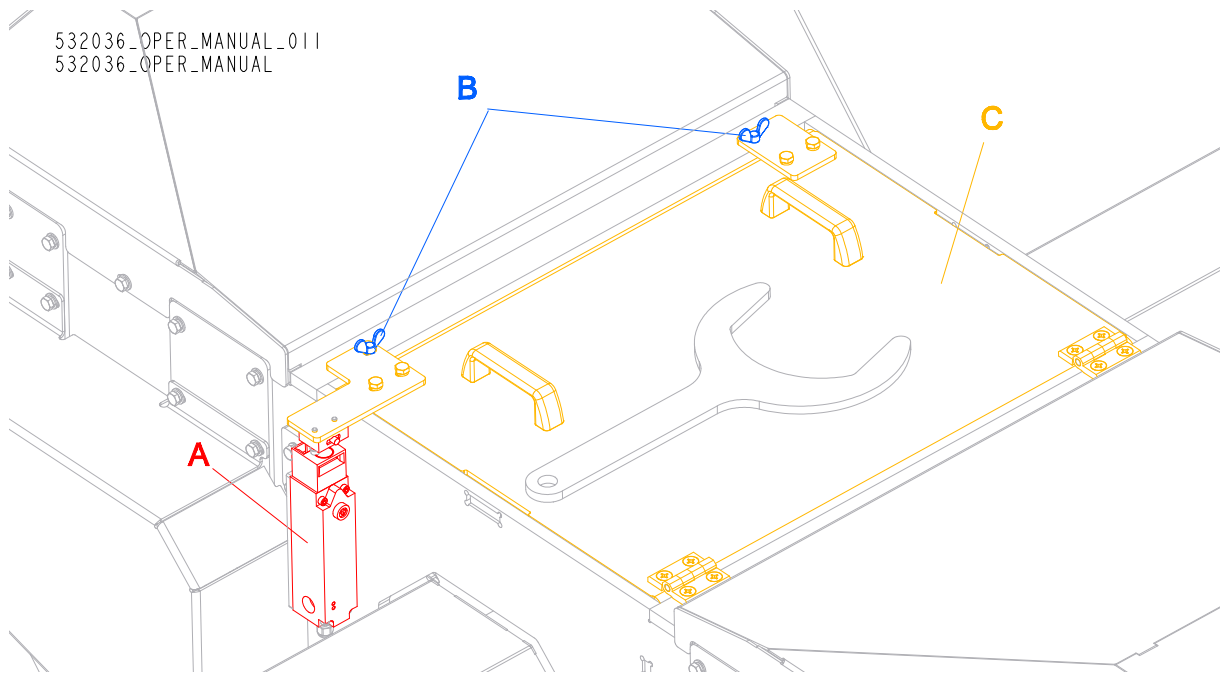


FIG. 4-18

4 Maintenance and Alignment (Edger)

Replacing the Blades

See Figure 4-19.

See Figure 4-20.

5. Place the provided wrench (A) on the spacer (B).
6. Use allen wrench to loosen and remove the bolt (C). One of the bolts (C) has right and the other has left thread. Directions of turn to [loosen](#) or to [tighten](#) them are showed in Fig. 4-20.
7. Remove arbor cap (D) and replace the blade (E).
8. Refit arbor cap (D), mount and tighten allen bolt (C), remove wrench (A)

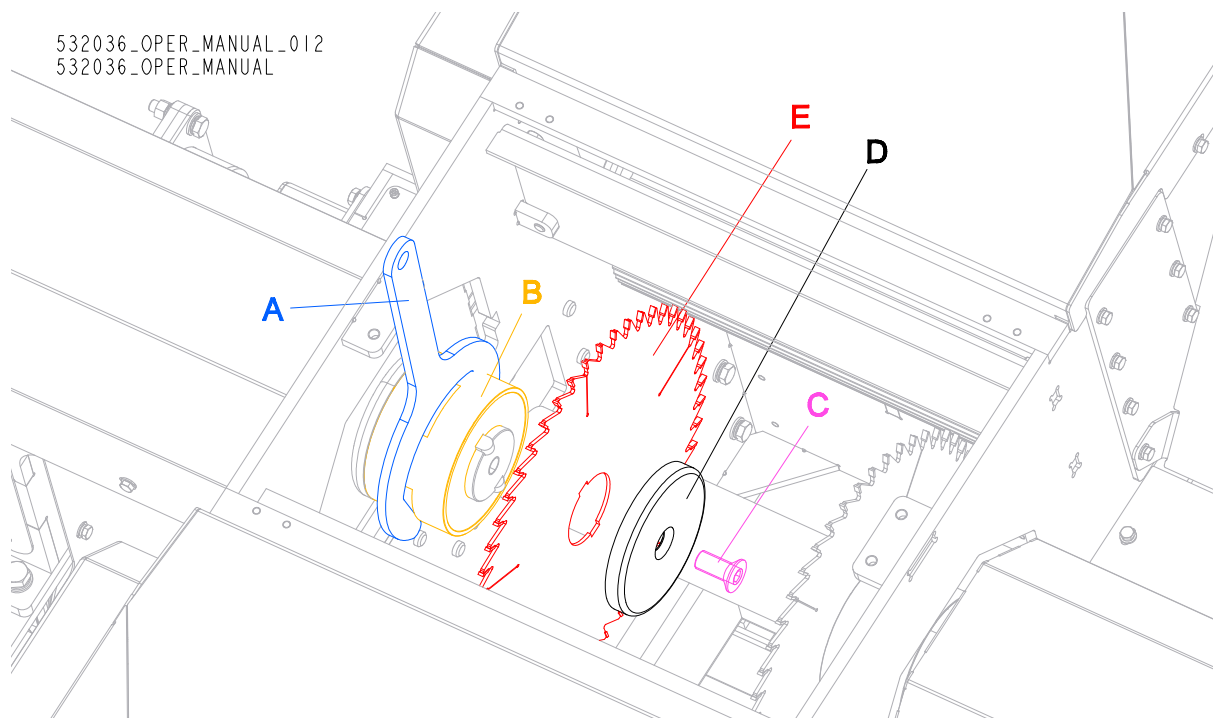


FIG. 4-19

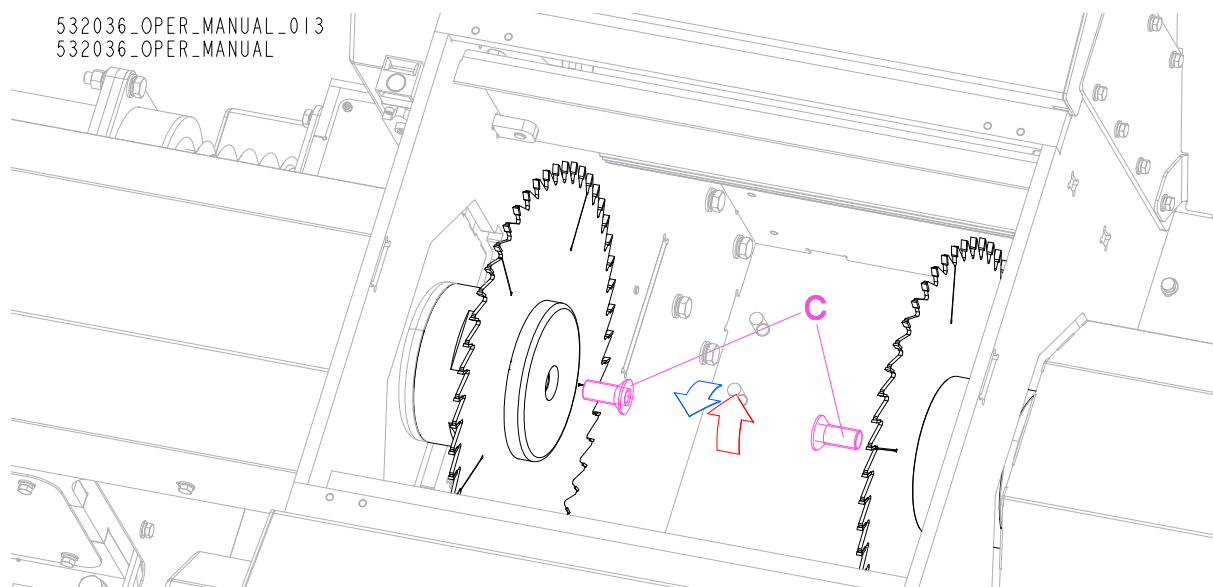


FIG. 4-20

See Figure 4-21.

9. Close blade housing (C) and secure it with screws (B).

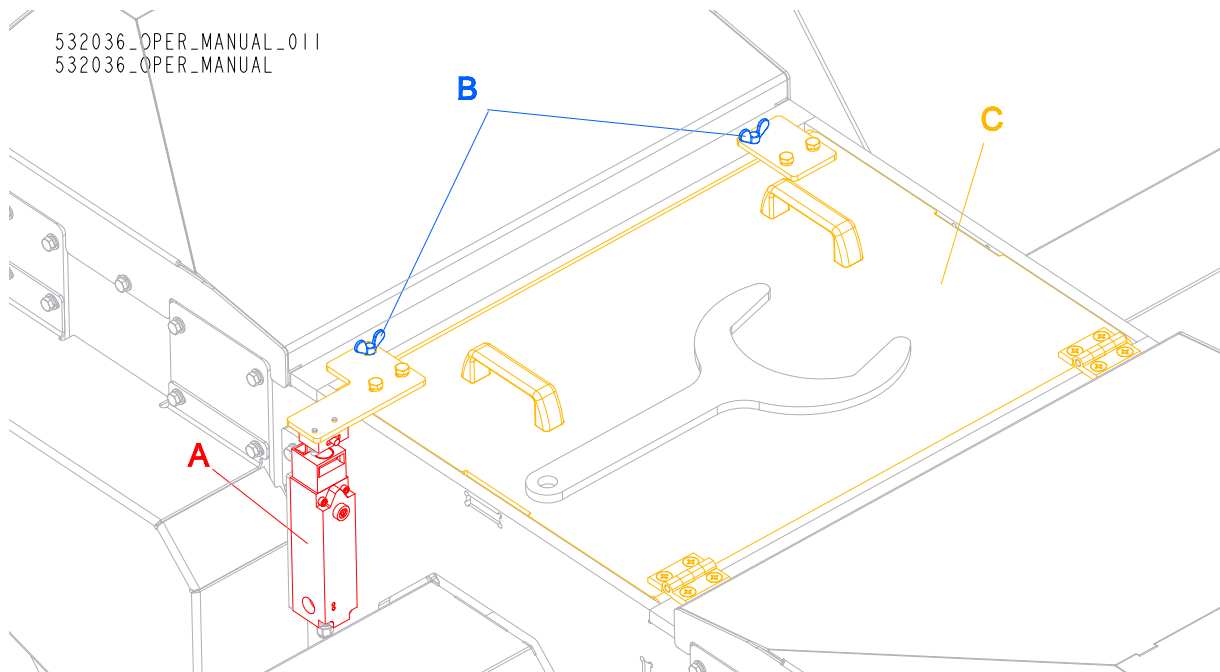


FIG. 4-21

4.8 Tensioning the Chains and Belts



DANGER! Always shut off the motor and allow all moving parts to come to a complete stop before removing any guards or covers. Failure to do so may result in serious injury.

Before tensioning the chains, make sure the motor is turned off and the main switch is in the "0" position. Disconnect the power cord. Failure to do so may result in serious injury.

4.8.1 Main Drive Belt Tensioning

40

Check the new main drive belts tension after 40 hours of operation. Adjust the belt if necessary.

160

.Check the main drive belts tension every 160 hours of operation. Adjust the belt if necessary.

See Figure 4-22.

1. Move out the moving arbor.

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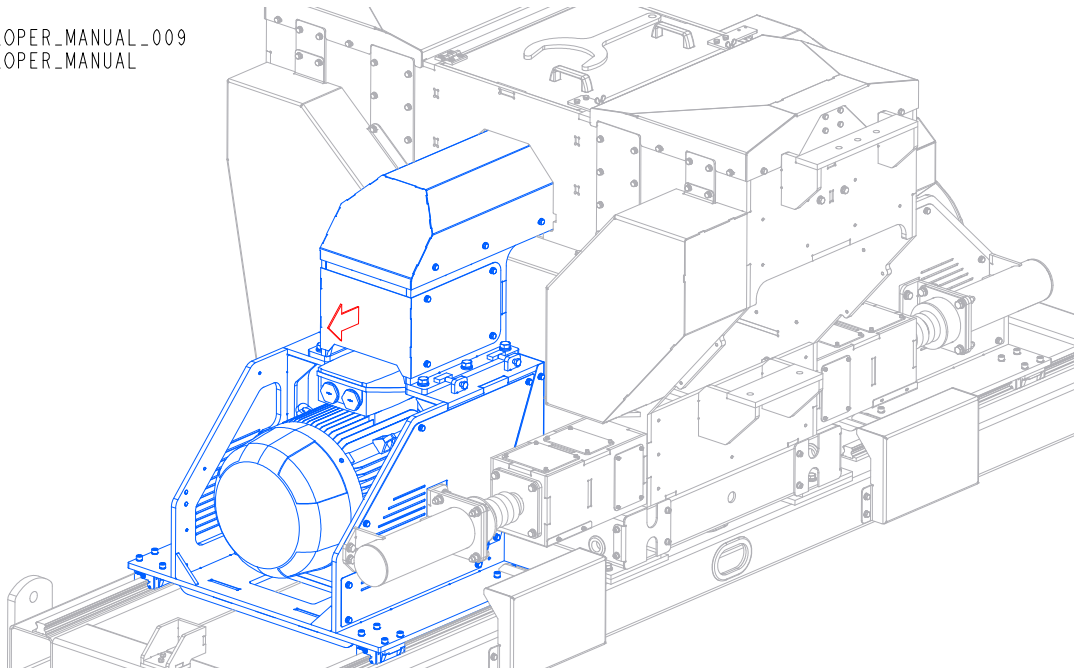


FIG. 4-22

See Figure 4-23.

2. Unbolt fasteners (A) and remove the guard (B).

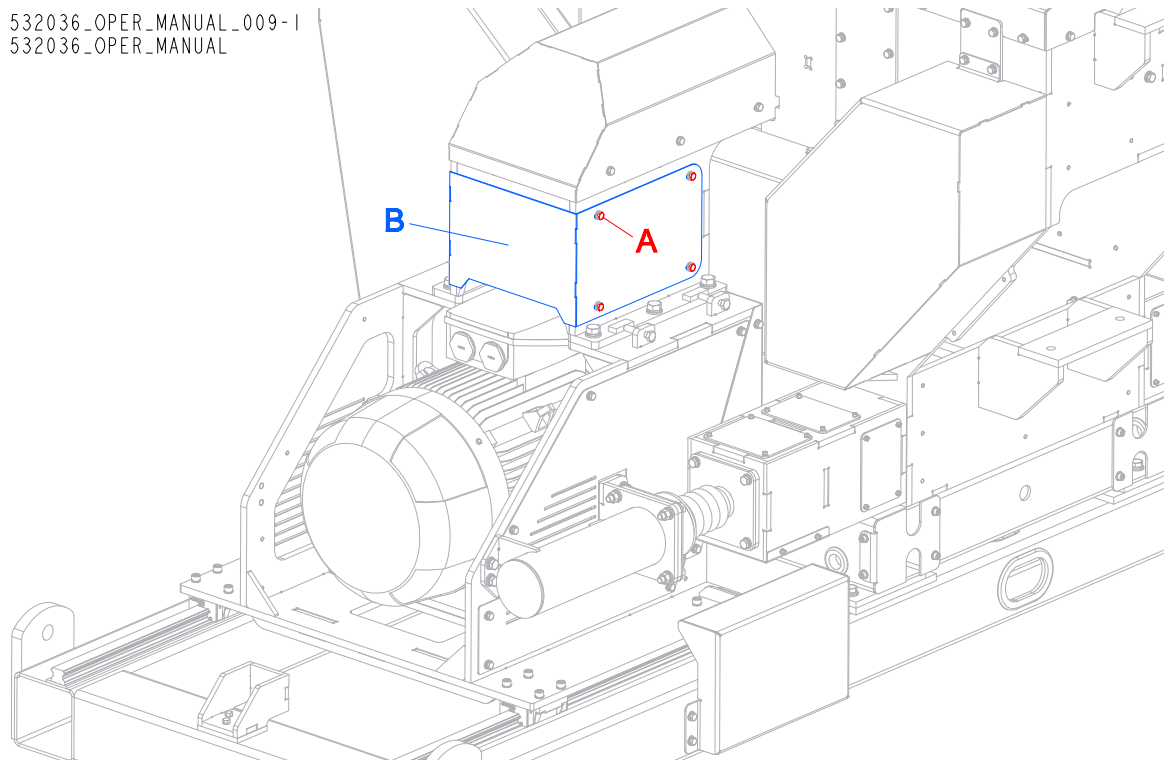


FIG. 4-23

See Figure 4-24.

3. Loosen the nut (A)
4. Using the bolt (B) rise or lower the motor to adjust tension of the belts. (C)
5. Tension the belts to have approximately 6 mm of deflection when applying the force: 1,4 kg (for new belt) or 1,2 - 1,3 kg (for used belt).
6. Tighten the nut (A).

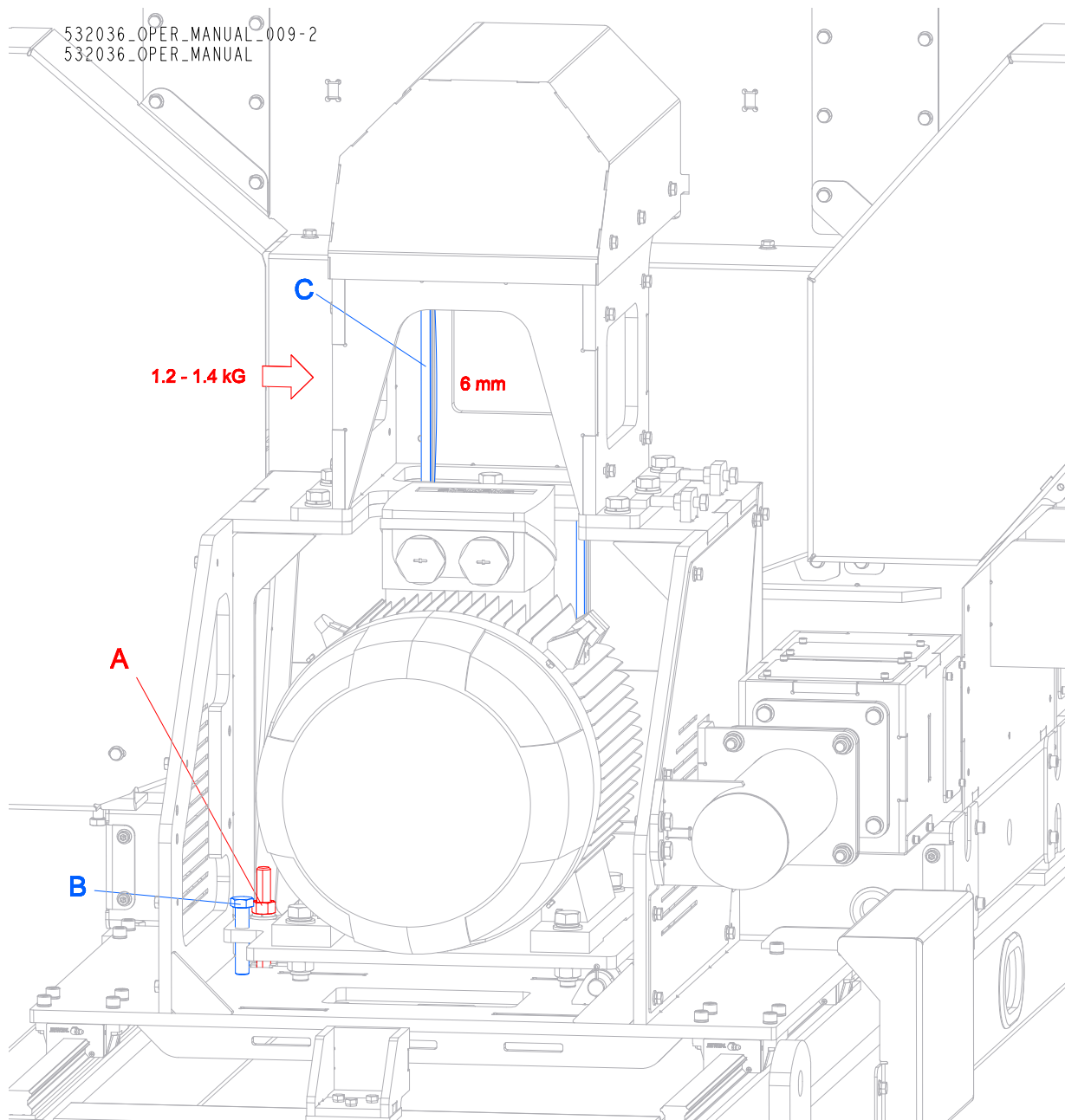


FIG. 4-24

7. Reinstall previously removed cover.

4.8.2 Drive Belt Tensioning

1. Unbolt fasteners (A) and remove the guard (B) shown below.

See Figure 4-25.

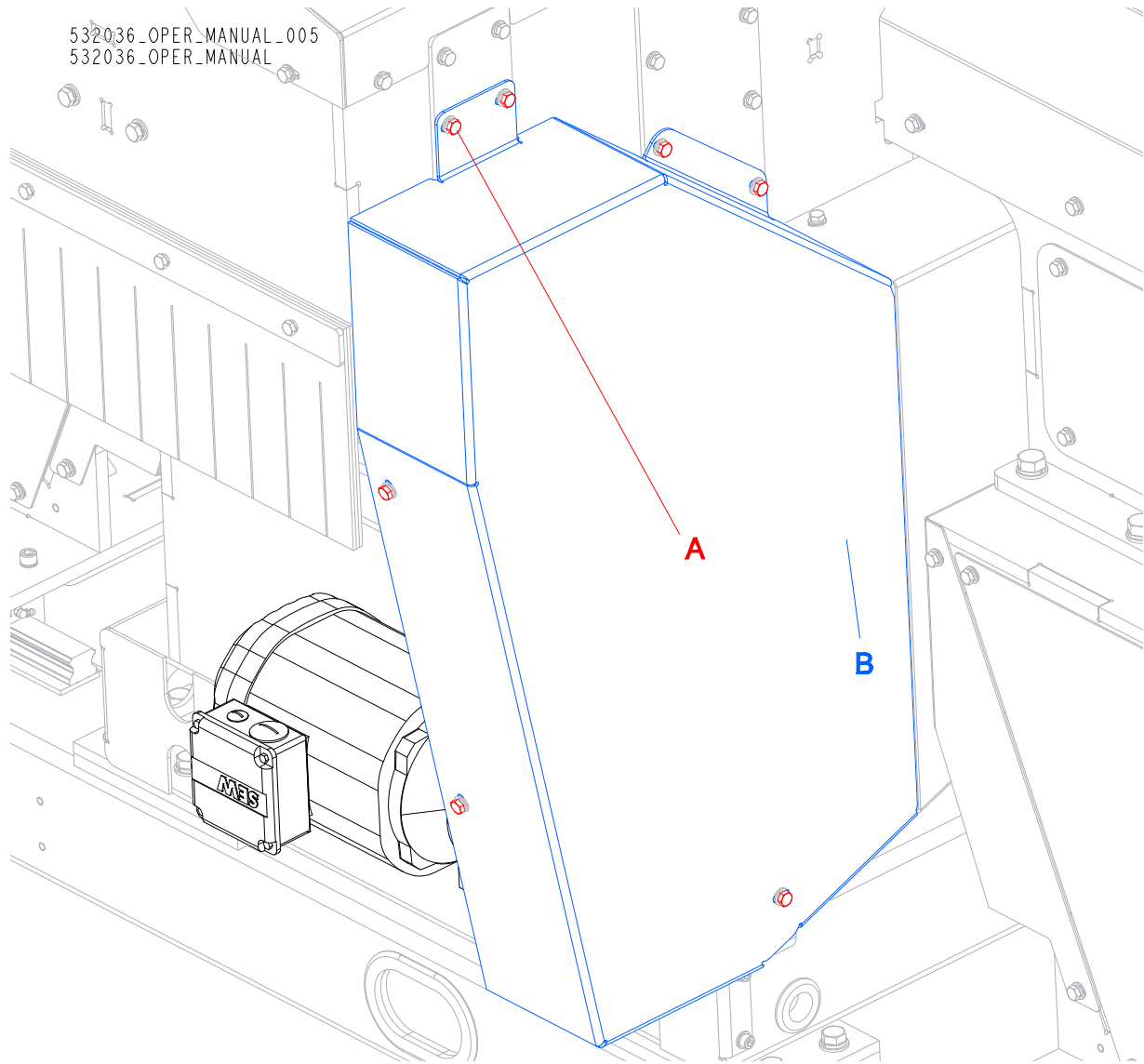


FIG. 4-25

2. Unbolt fasteners (A) and remove the guard (B) shown below.

See Figure 4-26.

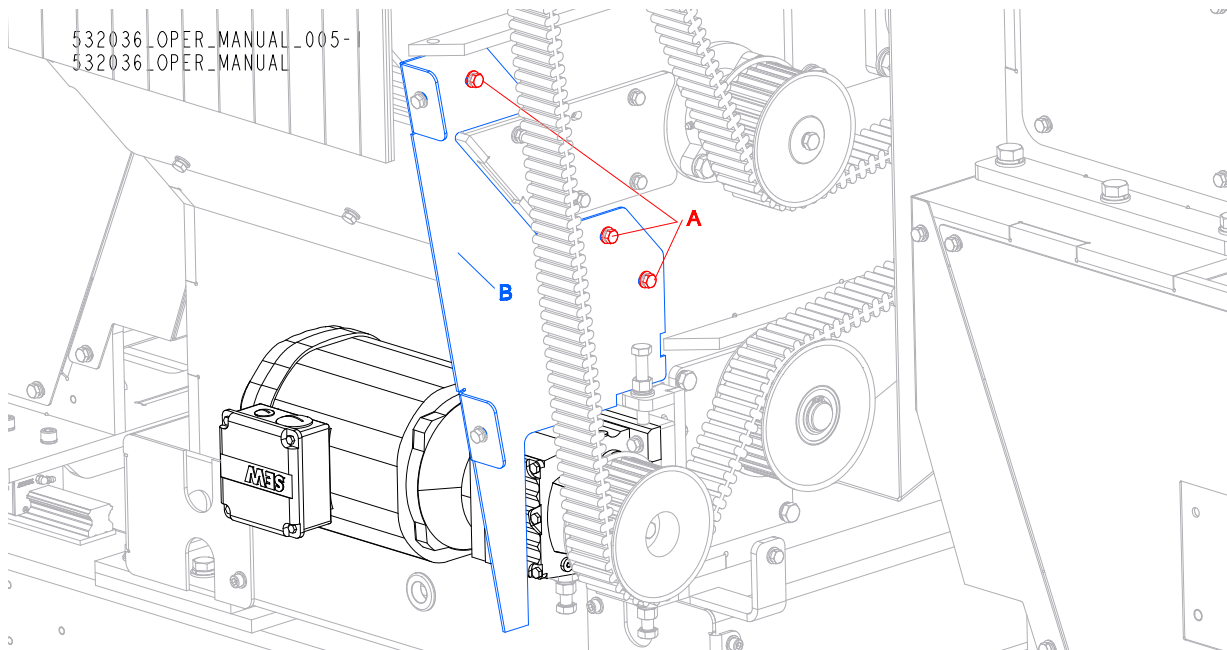


FIG. 4-26

3. Unbolt fasteners (A) and remove the guard (B) shown below.

See Figure 4-27.

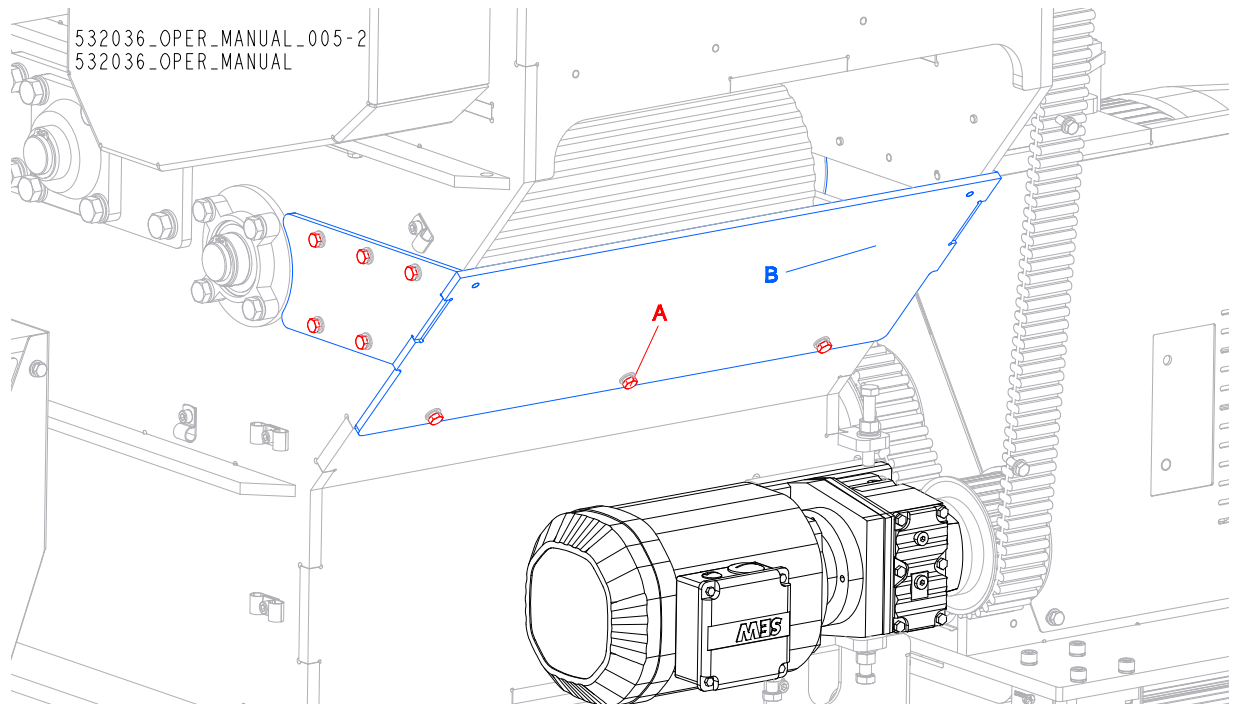


FIG. 4-27

4 Maintenance and Alignment (Edger)

Drive Belt Tensioning

See Figure 4-28.

4. Loosen the motor mounting bolts (A).
5. Using the bolts (B) and (C) tension the belts to have approximately 33 mm of deflection when applying 9 kg of force.

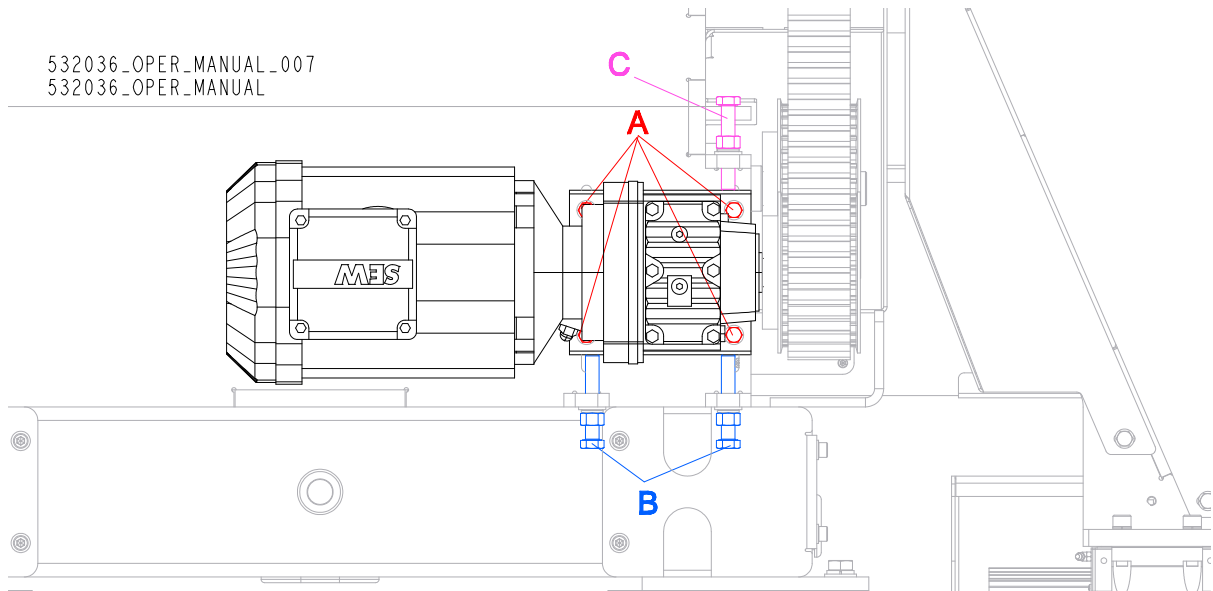


FIG. 4-28

See Figure 4-29.

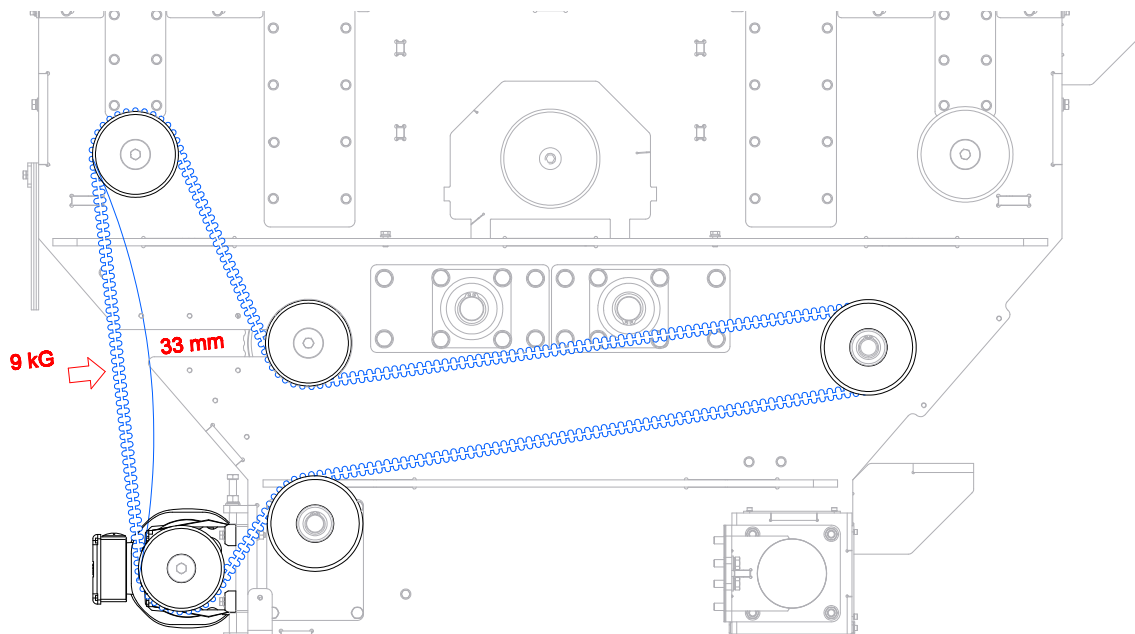


FIG. 4-29

See Figure 4-30.

6. Be sure that sprockets (C) and (D) are in line. If they aren't, correct it using bolts A and B.

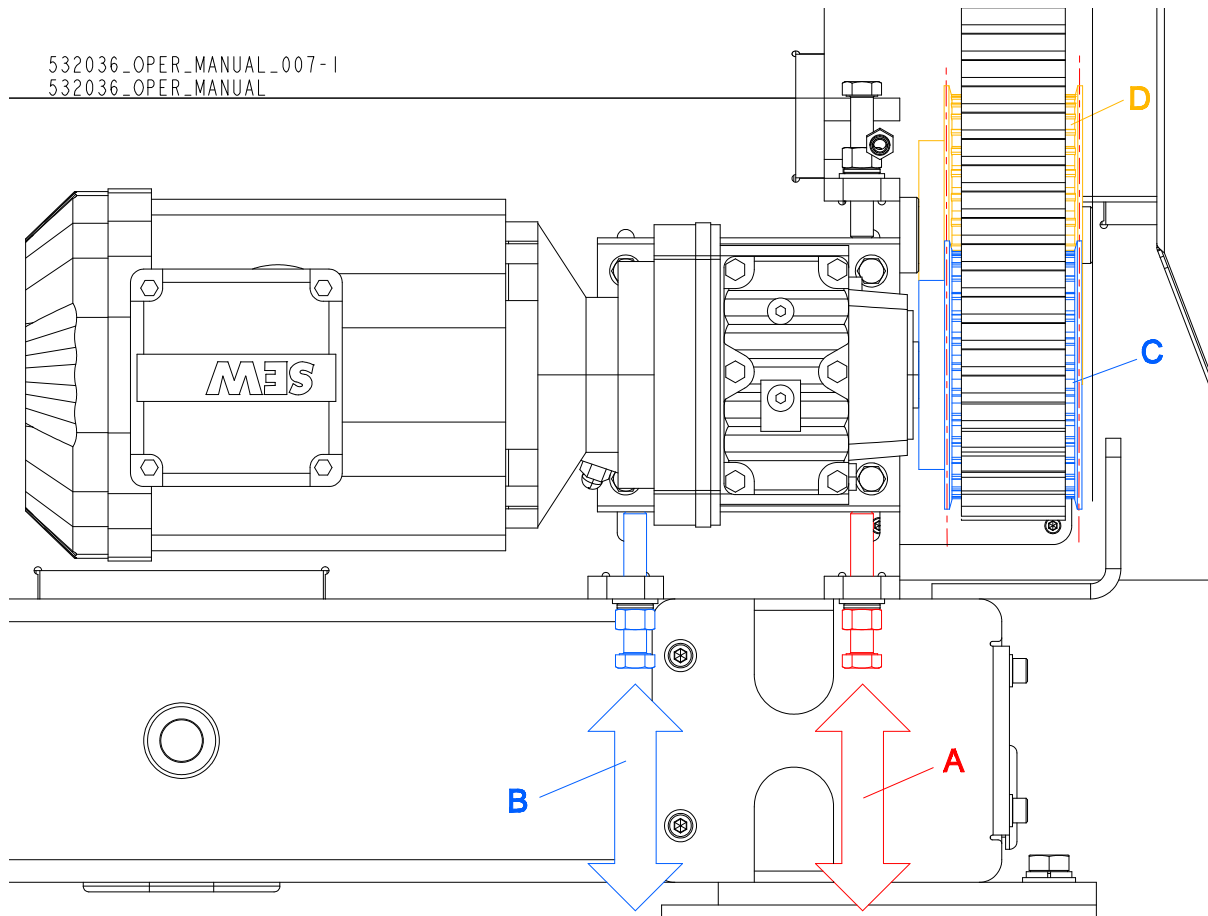


FIG. 4-30

See Figure 4-31.

7. Tighten the motor mounting bolts (A)

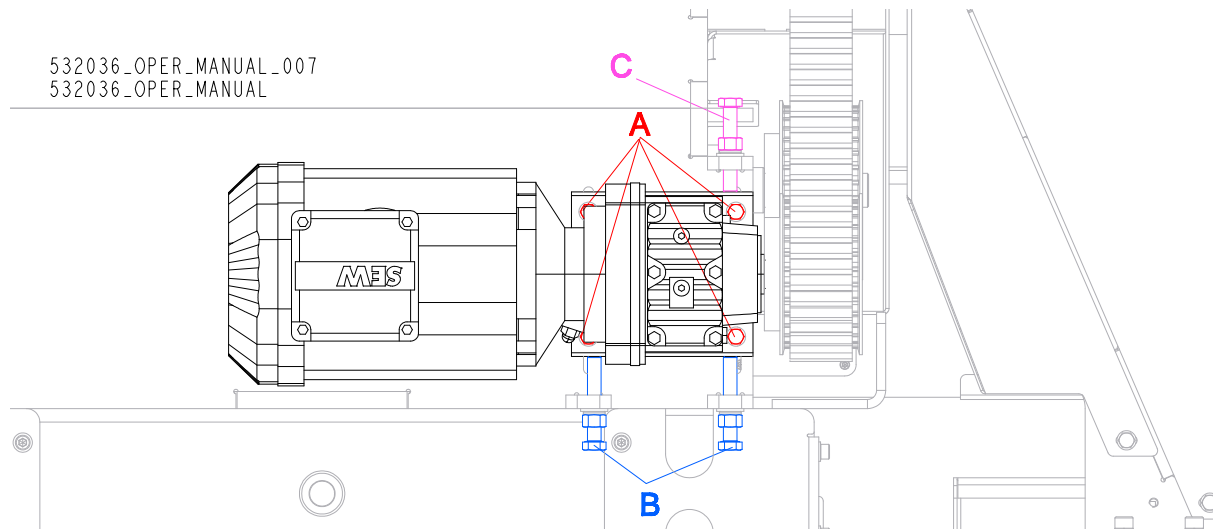


FIG. 4-31

8. Reinstall all previously removed covers.

4.9 Lubrication and Cleaning

1. Remove any debris from the blade drive shaft every 8 hours of operation. Use a soft cloth to apply a dry graphite daily to ensure resistance-free motion and to prevent surface corrosion.

8
2. Lubricate the bearings every 200 hours of operation with a lithium grease such as Shell Alvania No. 3. Do not over-grease.

200
3. Remove sawdust and debris from drive, feed chains and drive belts every 8 hours of operation.

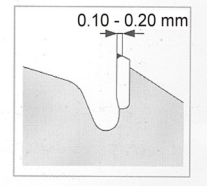
8
4. Lubricate the chains every 40 hours of operation with a mineral oil. Do not over-oil.

40
5. Check the press rollers every 4 hours of operation. Remove any dirt or debris from them and from their covers. Make sure the rollers spin freely, without much play.

4

4.10 Blade Sharpening

The blade teeth should be sharpened as soon as their dullness, measured as shown in the figure on the right, is .10 - .20 mm (0.0039 - 0.0078").

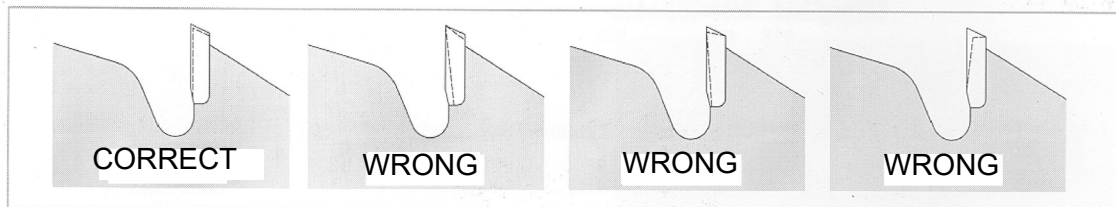
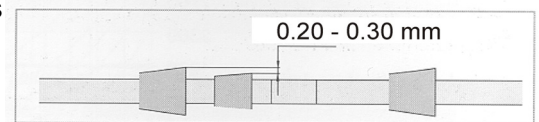


Use diamond grinding wheels for sharpening the blades. Apply intensive cooling during sharpening to prevent overheating and structural changes in the cemented carbide tips.

Blades with hard tips (GLOTECH series) must be intensively cooled with water during sharpening. Failure to do so will result in cracks in the tips.

In Multix type blades the carbide tips should be .4 - .6 mm (0.0157 - 0.0236") wider than the carbides in the wiper slots. (See the figure below.) If this difference is not kept, it will result in disk overheating and – in extreme case – in cracks in the blade gullets. The carbide plates in the wiper slots remove sawdust and splinters from the kerf. They also cause sawdust to be blown away.

When sharpening, maintain the proper tooth geometry as indicated in the figure below.



4.11 Using the Blades

The surfaces of spacers should be clean and flat against one another. The blade should not rotate on the shaft during sharpening as it will lead to its damage.

Do not set teeth with cemented carbide tips!

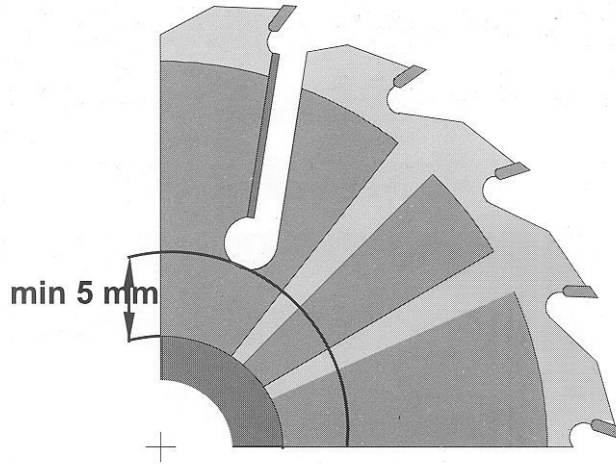
Do not make any modifications to the blade teeth!

Do not operate the machine if either of the blades is dull. Using dull blades causes stronger cutting resistance, decreased cut accuracy and may result in blade burning and even cracks in the gullets and the

wiper slots.

Do not exceed the maximum blade rotation speed recommended for a given type of material!

When using Multix type blades, keep at least 5 mm (0.197") spacing between the bottom of the wiper slot and the spacer outer diameter.



To remove any sawdust buildup from the blade disk, preferably use a solution of hot water and soda or another cleaner.

Any blades which are not used for a longer period of time should be properly maintained.

The blades should be used in accordance with safety rules and their application and on machines in good operating condition and equipped with suitable safety guards.

SECTION 5 SPECIFICATIONS

5.1 EA3000 Edger Specifications

See table 5-1 See the table below for technical data of the EA3000 edger.

	Engine/Motor Specifications
Engine/Motor Type	E40 Electric Motor
Manufacturer	Siemens, Czech Republic
Voltage	400V 460V
Maximum Current	53 A@400V 52A@460V
Maximum Revolutions per Minute	2955 r.p.m. at 50Hz 3555 r.p.m. at 60Hz
Rated Power	30kW (40HP) at 50Hz 33,5kW (45HP) at 60Hz
Manufacturer Part No.	1LE1003-2AA43-4AA4-Z

TABLE 5-1

See table 5-2 Noise Level:^{1 23}

	Engaged
Edger Equipped with electric motor E40	107 dB (A)

TABLE 5-2

1 The noise level measurement was taken in accordance with PN-EN ISO 3746 Standard Value for associated uncertainty K=4dB.

2 The measured values refer to emission levels, not necessarily to noise levels in the workplace. Although there is a relation between emission levels and exposure levels, it is not possible to determine with certainty if preventives are needed or are not needed. The factors affecting a current level of noise exposure during work are inter alia room characteristics and characteristics of other noise sources, e.g. number of machines and machining operations nearby. Also, the permissible exposure level value may vary depending on country. This information enables the machine's user to better identify hazards and a risk.

3 The total value of hand-arm vibration the operator may be exposed to does not exceed 2.5 m/s². The highest root mean square value of weighted acceleration to which the whole operator's body is subjected does not exceed 0.5 m/s².

See table 5-3 Other specifications of the EA3000 edger are given below.

Number of blades	2
Blade diameter	450 mm
Blade Rotational Speed	3555 r.p.m.
Cutting speed	0 - 200 m/min
Minimum board length	1800 mm
Minimum board thickness	20 mm
Maximum board thickness	100 mm
Minimum cutting width	100 mm
Maximum cutting width	300 mm
Maximum material width	400 mm

TABLE 5-3