

user manual

Instrukcja obsługi | Руководство пользователя
Manuel de l'Utilisateur | Betriebsanweisung
Bruksanvisning | Manual del Usuario
Betjeningsvejledning | Gebruikershandleiding
Käyttöohjeet | Manual de utilizare | Bruksanvisning
Manuale d'uso | Příručka uživatele | Navodila
za uporabo

Retain for future use
Zachować do przyszłego użytku
Сохраните для последующего
использования
A conserver pour une utilisation future
Für zukünftige Benutzung aufbewahren
Behold for senere bruk
Säilytä nämä käyttöohjeet tulevaa tarvetta marten
Opbevar manualen til fremtidig brug
Bewaren voor gebruik in de toekomst
Conservare il presente manuale a l'uso futuro
Păstrați acest manual pentru utilizare viitoare
Conservar para futuras consultas
Behall för framtida användning
Uchovejte pro další použití
Hranite za prihodnjo uporabo



Edger

**Safety, Operation, Maintenance
and Replacement Parts**

**E100EH7S, E100EH10S, E100G14S
rev. B1.00**



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

Form #100

Table of Contents

Section-Page

SECTION 1	SERVICING THE EDGER	1-1
1.1	General Information	1-1
1.2	Customer and Edger Identification.....	1-1
1.3	E100 Edger Components.....	1-3
SECTION 2	SAFETY	2-1
2.1	Safety Symbols.....	2-1
2.2	Safety Instructions.....	2-1
	<i>Observe Safety Instructions</i>	
	<i>Wear Safety Clothing</i>	
	<i>Keep Edger and Area Around Edger Clean</i>	
	<i>Dispose of Sawing By-Products Properly</i>	
	<i>Check Edger Before Operation</i>	
	<i>Keep Persons Away</i>	
	<i>Keep Hands Away</i>	
	<i>Use Proper Maintenance Procedures</i>	
	<i>Keep Safety Labels In Good Condition</i>	
	<i>Safety Labels Description</i>	
SECTION 3	INSTALLATION	3-1
3.1	Edger Setup	3-1
3.2	Installation and Setup	3-2
	<i>Assembling the Main Module Base</i>	
	<i>Movable Blade Horizontal Adjustment</i>	
	<i>Blade Position Lock Adjustment</i>	
	<i>Adjustment of the Cutting Width Setting System</i>	
3.3	Installation and Setup of the Tables	3-17
	<i>Table Installation</i>	
	<i>Optional Table Installation</i>	
	<i>Guide Bar Installation</i>	
	<i>Levelling the Tables with the Main Module</i>	
	<i>Horizontal Adjustment of the Tables</i>	
	<i>Drive Pulley Sprocket Adjustment</i>	
	<i>Hold-Down Roller Installation</i>	
	<i>Checking Rotation Direction of the Belt Drive Motor</i>	
3.4	Emergency Stop Switch Installation (CE Version Only).....	3-31
SECTION 4	OPERATION	4-1
4.1	Edger Startup	4-1
4.2	Control Overview	4-3
	Control Panel of E100 Edgers with Electric Motor	
4.3	Starting the Gas Engine	4-4
4.4	Edging Operation.....	4-5

Table of Contents

Section-Page

SECTION 5	MAINTENANCE AND ALIGNMENT	5-1
5.1	Replacing the Blades	5-1
5.2	Blade Drive Belt Tension	5-2
5.3	Belt Tensioner Adjustment and Belt Replacement (Gas Engine)	5-4
5.4	Tensioning and Replacing the Electric Motor Drive Belt	5-6
5.5	Replacing the Blade Drive Belts	5-7
5.6	Checking the Rollers and Table Belt	5-11
5.7	Lubrication	5-11
5.8	Maintaining the Anti-Kickback Fingers	5-11
5.9	Blade Sharpening	5-12
5.10	Using the Blades	5-12
5.11	Safety Devices Inspection (Only CE Version)	5-14
SECTION 6	SPECIFICATIONS	6-1
6.1	Overall Dimensions	6-1
6.2	E100 Edger Specifications	6-2
6.3	Sawdust Exhaust System Specifications	6-4

SECTION 1 SERVICING THE EDGER

1.1 General Information

Timbery 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 E100 Edger is intended for sawing wood only. See Section Specifications for board 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 (18 and more years 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 Customer and Edger Identification

Each Timbery 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 and easy access to them.

See Figure 1-1 An identification plate of the E100 Edger is described below.

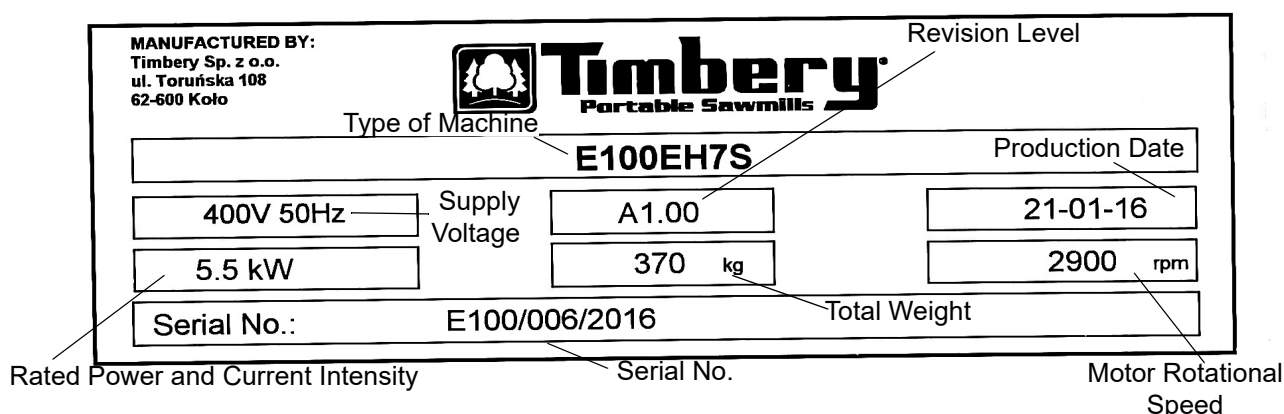


FIG. 1-1

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

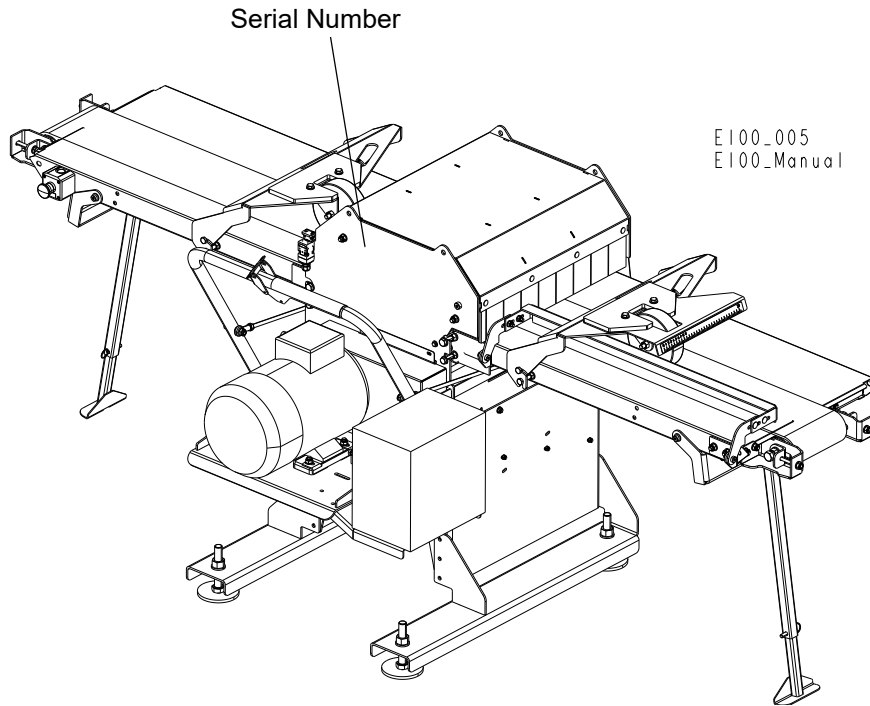


FIG. 1-2

1.3 E100 Edger Components

See Figure 1-3 The major components of the E100 Edger are shown below.

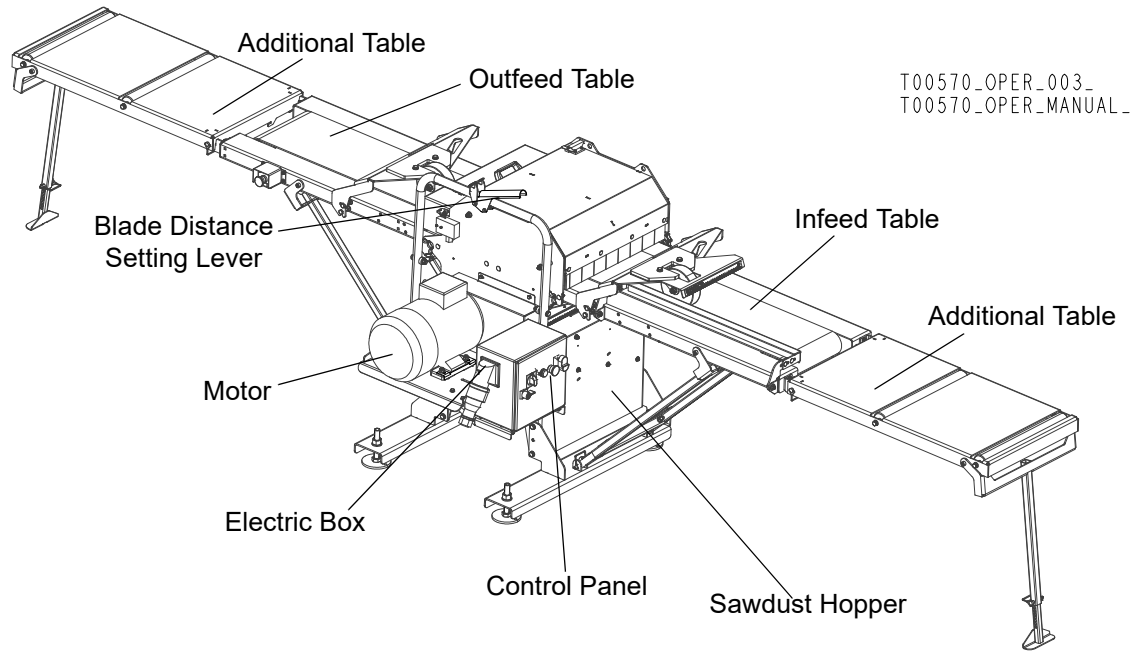


FIG. 1-3 E100

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.



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



The word **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 Operator'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 Timbery edger. All Timbery owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using the edger.

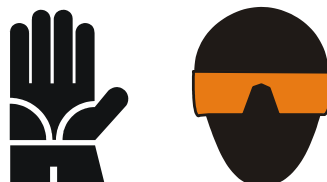


Wear Safety Clothing



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 a 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 protective gloves (compatible with EN 388, Category III) and protective apron (compatible with EN ISO 13688:2013-12, Category I) when operating the machine.


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



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.



 **DANGER!** If your sawmill is equipped with a gas engine, make sure there are not any fuel leaks before operating the machine as well as during operation. Failure to do so may result in serious injury.


 **WARNING!** Always shut 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 drive belts with the motor running. Doing so may result in serious injury.

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.

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

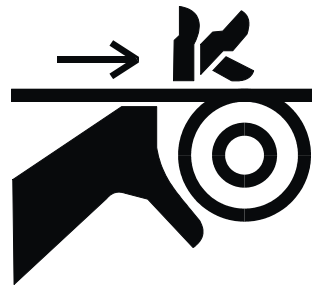


DANGER! Motor components can become very hot during operation. Avoid contact with any part of a hot engine. Contact with hot motor components can cause serious burns. Therefore, never touch or perform service functions on a hot motor. Allow the motor to cool sufficiently before beginning any service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

DANGER! Be careful when closing the upper blade cover. Failure to do so may result in serious injury.



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! Kickback hazard. Stay clear of area during operation. Follow all anti-kickback service and safety rules. 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 blade and drive guards 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.

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 boxes 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, and the other at the rear of the machine. They are used to immediately stop the motor/engine 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 Timbery Customer Service or the Timbery 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

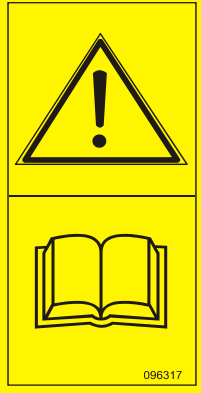

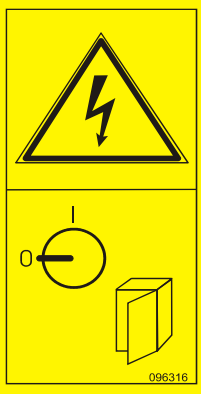
Decal View	Decal No.	Description
	096317	CAUTION! Read thoroughly the operator's manual before operating the edger. Observe all safety instructions and rules when operating.
	099220	Close all guards and covers before starting the machine.
	096316	Do not open or close the electric box when the switch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

TABLE 2-1

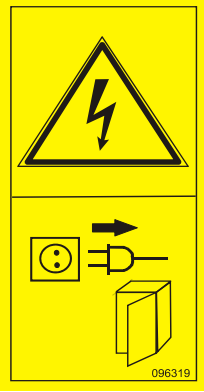



	<p>096319</p>	<p>Always disconnect the power cord before opening the electric box.</p>
	<p>S12004G</p>	<p>Always wear safety goggles when operating the edger.</p>
	<p>S12005G</p>	<p>Always wear protective ear muffs when operating the edger.</p>
	<p>501465</p>	<p>CAUTION! Always wear safety boots when operating the edger!</p>

TABLE 2-1




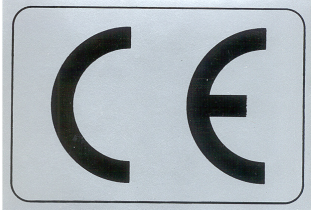
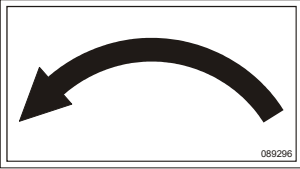
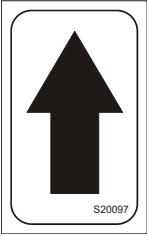



	<p>510080</p>	<p>Always wear protective gloves when operating the edger!</p>
	<p>539211</p>	<p>Always wear protective apron when operating the edger!</p>
	<p>501467</p>	<p>Lubrication point</p>
	<p>P85070</p>	<p>CE safety certification</p>
	<p>089296</p>	<p>Rotation direction</p>
	<p>S20097</p>	<p>Motor rotation direction</p>

TABLE 2-1

	<p>086099</p>	<p>Hand injury hazard</p>
	<p>524992</p>	<p>Kickback hazard warning</p>
	<p>524993</p>	<p>Hand injury hazard</p>

SECTION 3 INSTALLATION

3.1 Edger Setup



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

- Setup the machine on firm and level ground.
- When your E100 edger is used indoors, it must be operated with a sawdust exhaust system connected.
- The E100 edger equipped with an electric motor must not be used outdoors when it is raining/snowing. In such a case, the machine must be placed under a roof or indoors.
- The E100 edger with the G14 gas engine must be used outdoors. It can be operated without a sawdust exhaust system connected. To protect the operator against exhaust gases and sawdust, we recommend that the machine be setup so that the operator does not stand against the wind.
- The machine should work in temperatures of -15°C to 40°C (5°F to 104°F) only.
- The light intensity in the operator's work-place must be 300 lux¹.
- The work-places for two operators of the edger are shown in the figure below.

See Figure 3-1.

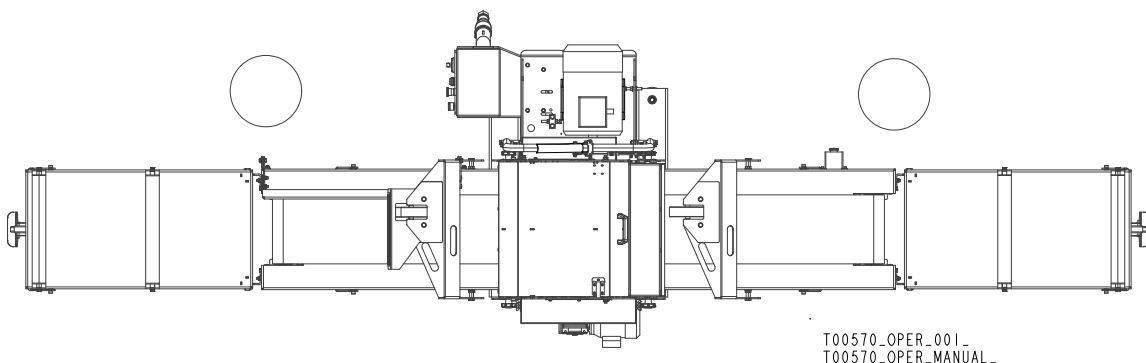


FIG. 3-1

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

3 INSTALLATION

Edger Setup

- Have a qualified electrician install the power supply (according to EN 60204). The power supply must meet the specifications given in the table below.

See Table 3-1.

3 Phases V	Fused Disconnect Switch	Recommended Wire Size
400 VAC	40 A	4 mm ² , maximum length: 15 m

TABLE 3-1



IMPORTANT! It is recommended that the electrical system be equipped with a 30mA Ground Fault Interrupter.



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



IMPORTANT! When starting the machine for the first time, let it run without any load for 1-2 hours so that the drive components of the infeed and outfeed tables break in.

3.2 Installation and Setup

- The E100 edger can be lifted using a forklift truck or a winch. The lifting capacity of the forklift must be at least 1000 kg. Special holes for the lifting hooks are provided on the upper blade cover. Use transport belts and hooks to secure the machine to the lifting equipment.

See Figure 3-2.

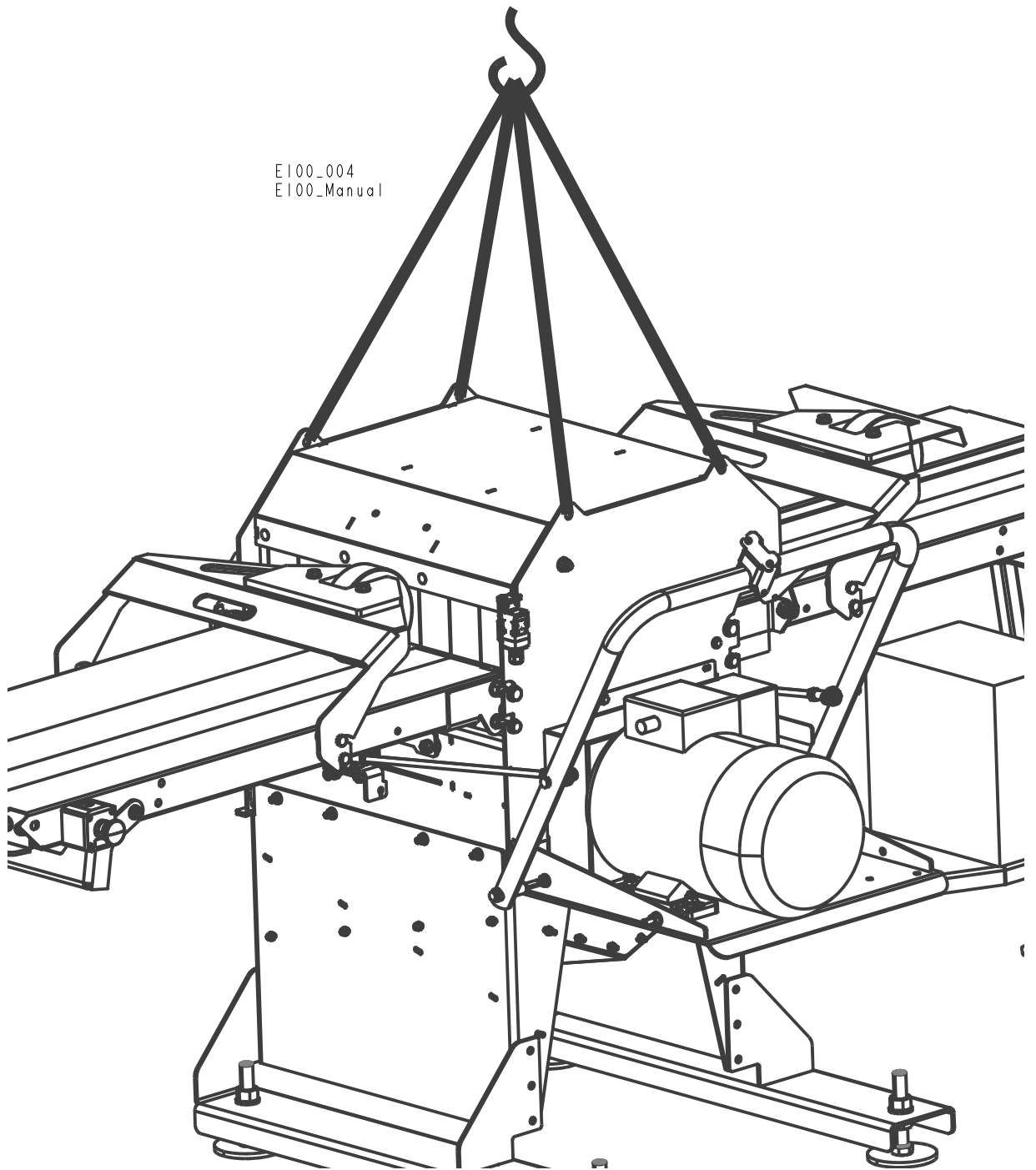


FIG. 3-2

3.2.1 Assembling the Main Module Base

1. Loosely bolt the side plates of the main module base to the front, rear and bottom plates of the sawdust hopper. Use the mounting hardware listed in the Replacement Parts List: [see Section 1.16](#), [see Section 1.17](#).

See Figure 3-3.

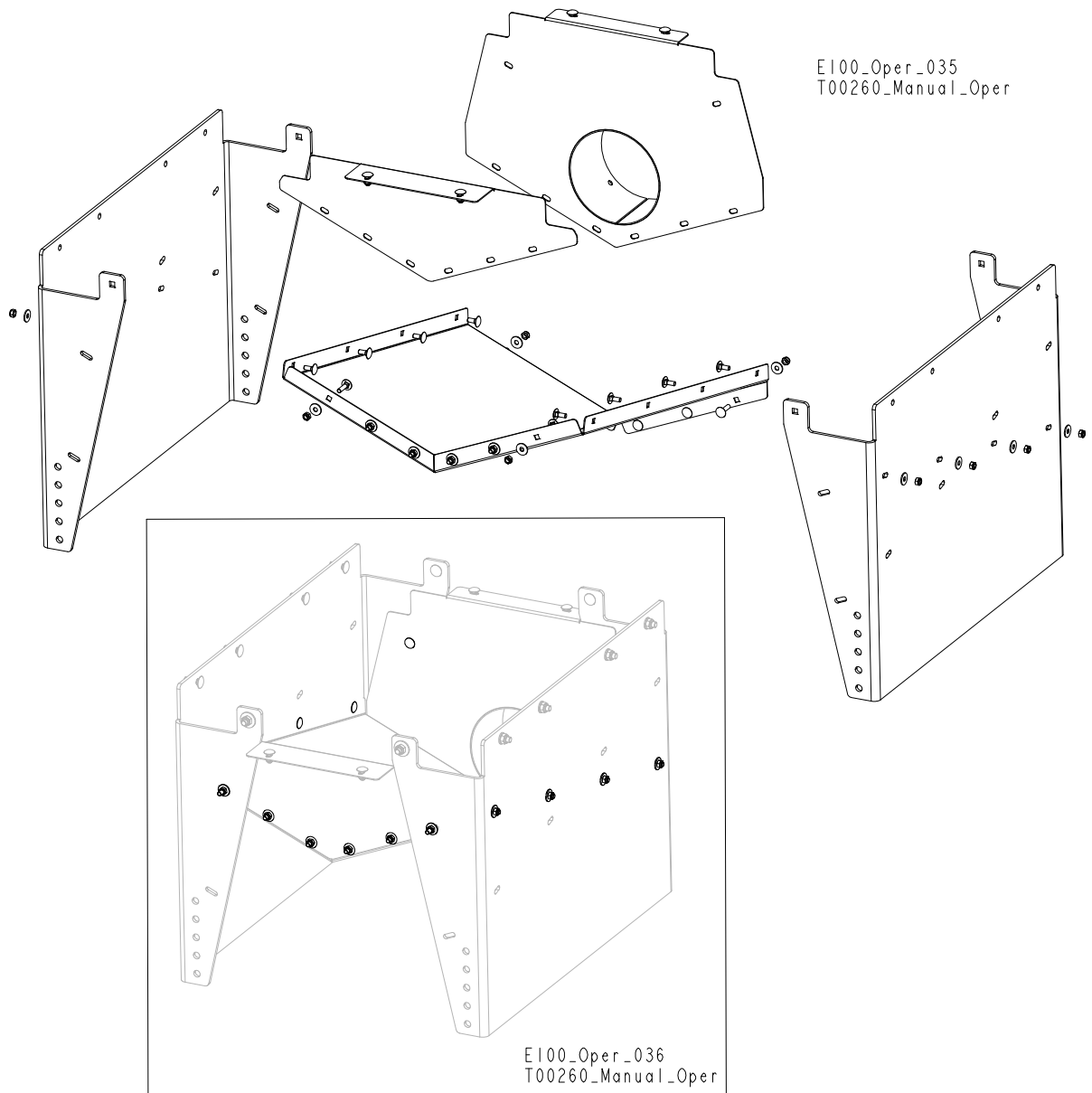


FIG. 3-3

2. Mount the foots of the main module base to the foot brackets using the M20 washers and nuts (see the figure below).

See Figure 3-4.

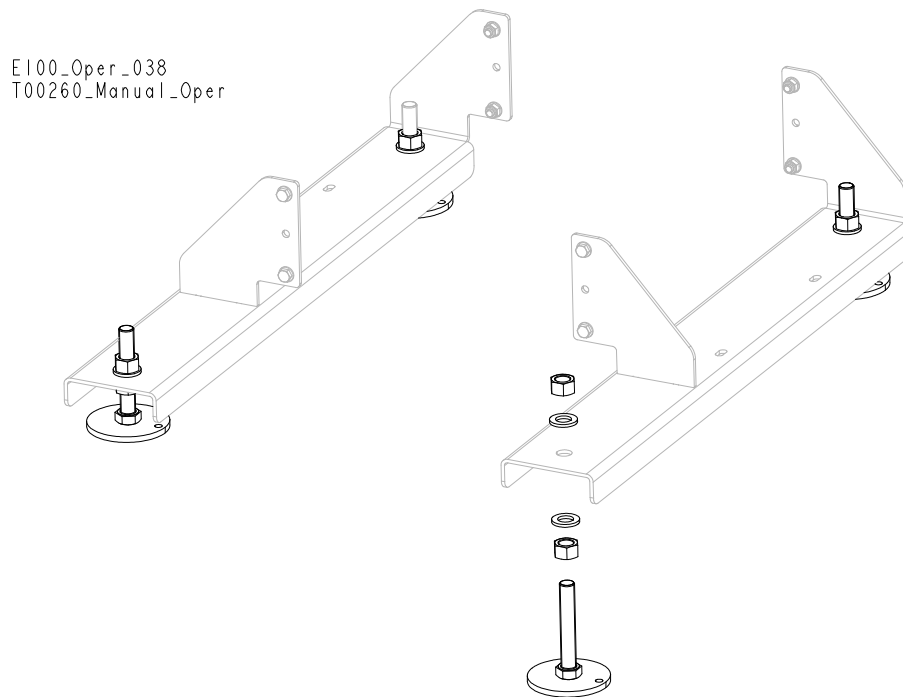


FIG. 3-4

3. Tightly bolt the foot brackets to the side plates of the main module base using the M10x30 bolts, M10 nuts and washers.

See Figure 3-5.

3 INSTALLATION

Edger Setup

NOTE: If your edger is equipped with optional transport brackets, see **Step 4**.

E100_Oper_037-A
T00260_Manual_Oper

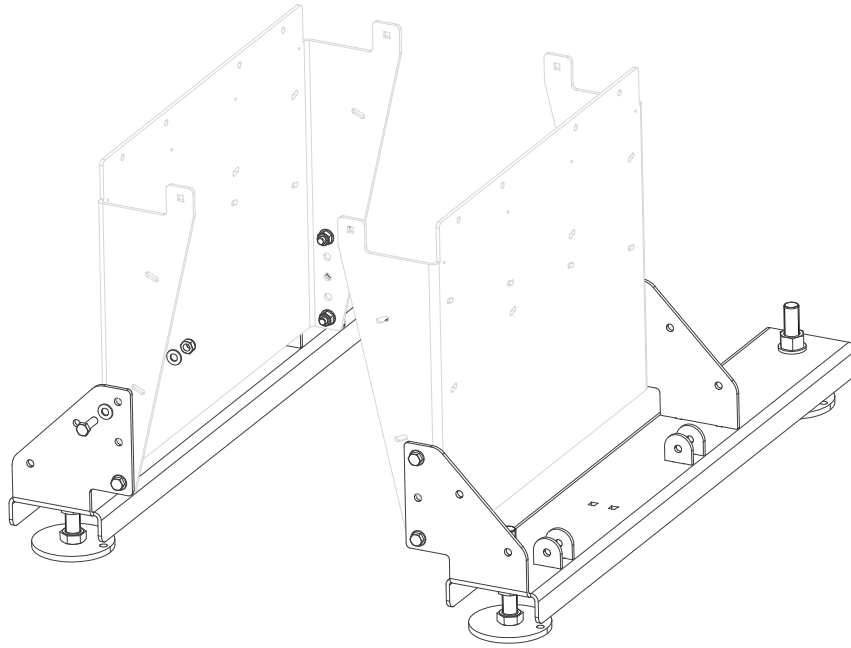


FIG. 3-5

4. To fasten the optional transport brackets (A), use the bolts "B" - M10x35 with the fasteners "D" - M10 and the bolts (C) - M10x30 with the fasteners "D" - M10.

The complete list of fasteners is included in the Replacement Parts List: [see Section 1.16](#).

See Figure 3-6.

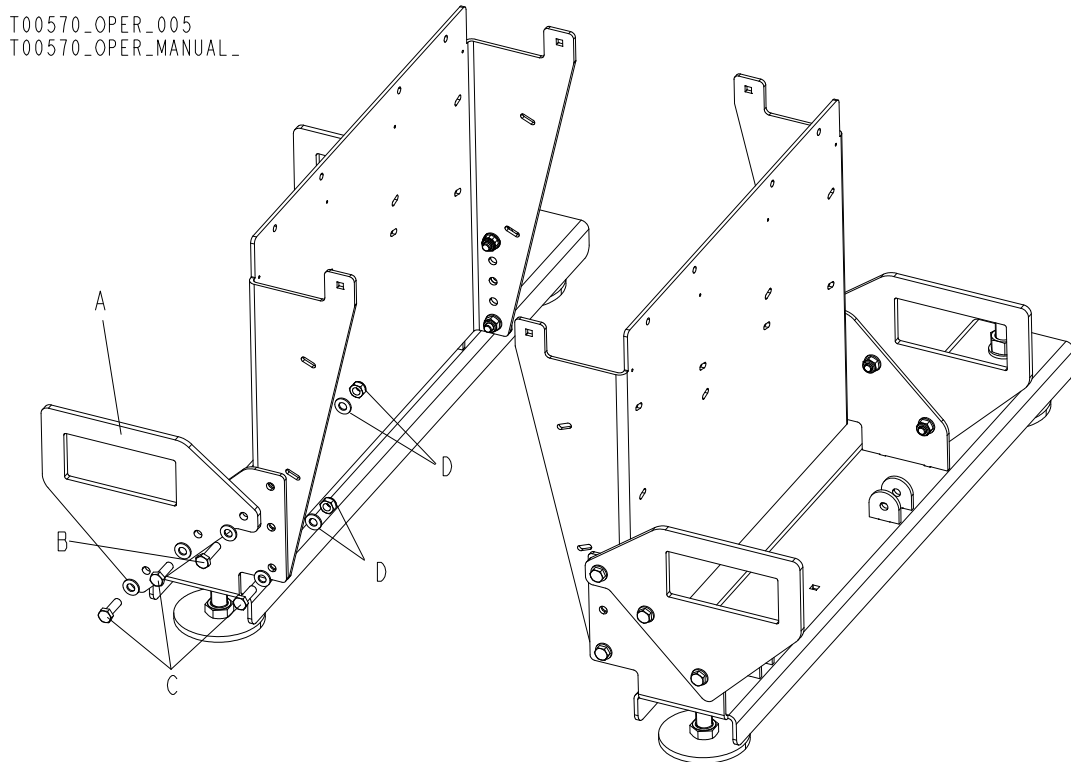


FIG. 3-6

5. Securely fasten the main module base together with the sawdust hopper to the machine body. To do this, perform the following steps:
 - Unbolt the motor/engine drive belt guard ([see Section 5.3](#) if your edger is equipped with the gas engine, or [see Section 5.4](#) in case of an electric motor),
 - Tightly bolt the base to the edger body using the fasteners listed in the Replacement Parts List: [see Section 1.16](#).
 - Securely connect the main module base with the sawdust hopper by tightening the existing nuts,
 - Reinstall the motor/engine drive belt guard.

See Figure 3-7.

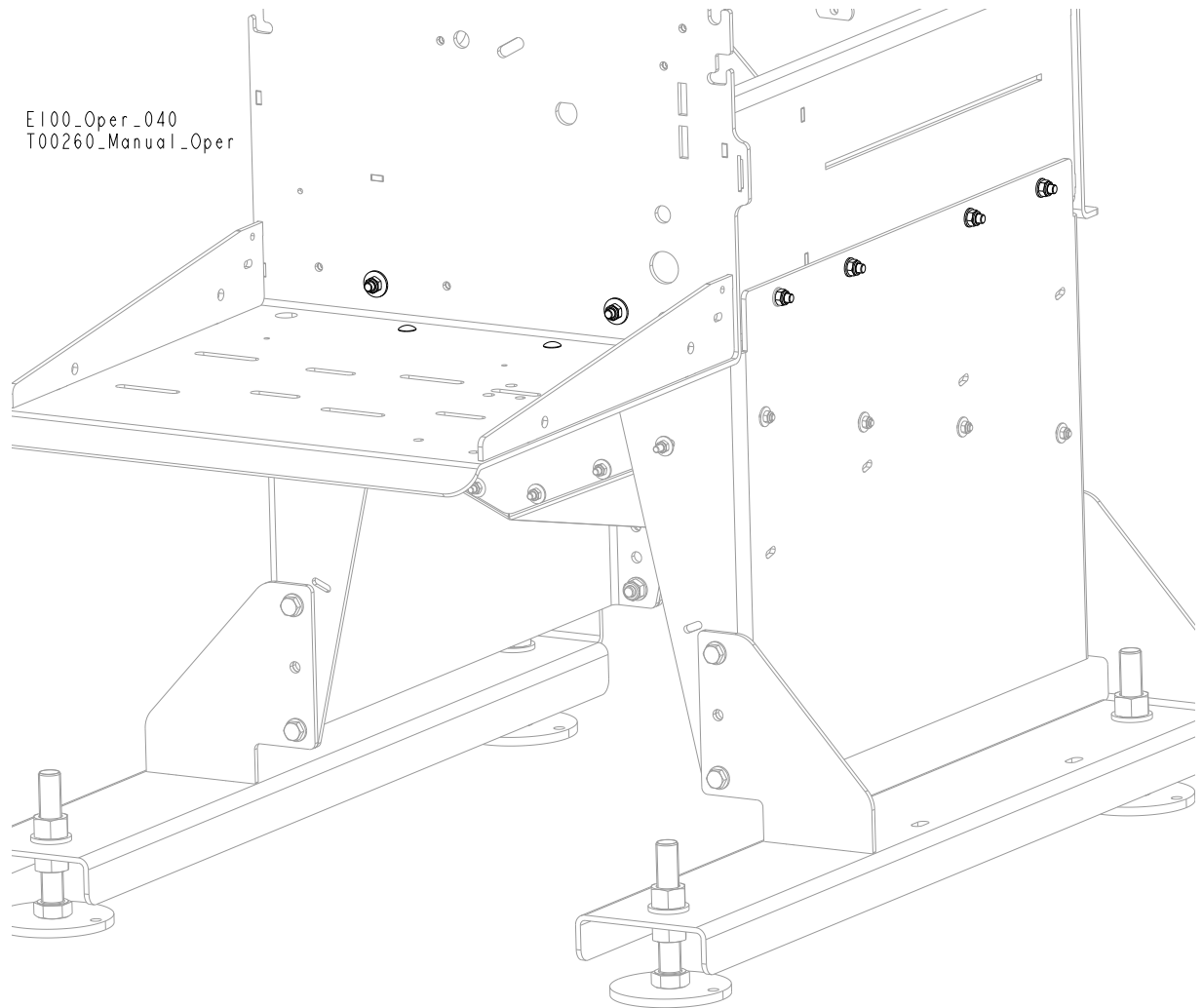


FIG. 3-7

3.2.2 Movable Blade Horizontal Adjustment

- Place a flat bar (maximum height: 30 mm, minimum length: 500mm) against each blade and measure the distance between the blades as shown below. The distances A and B should be equal. If they are different, adjust the movable blade in the horizontal plane using the rods shown in Figure 3-7. To do this, loosen the nuts (C) on the rod, turn the rods and tighten the nuts.

See Figure 3-8.

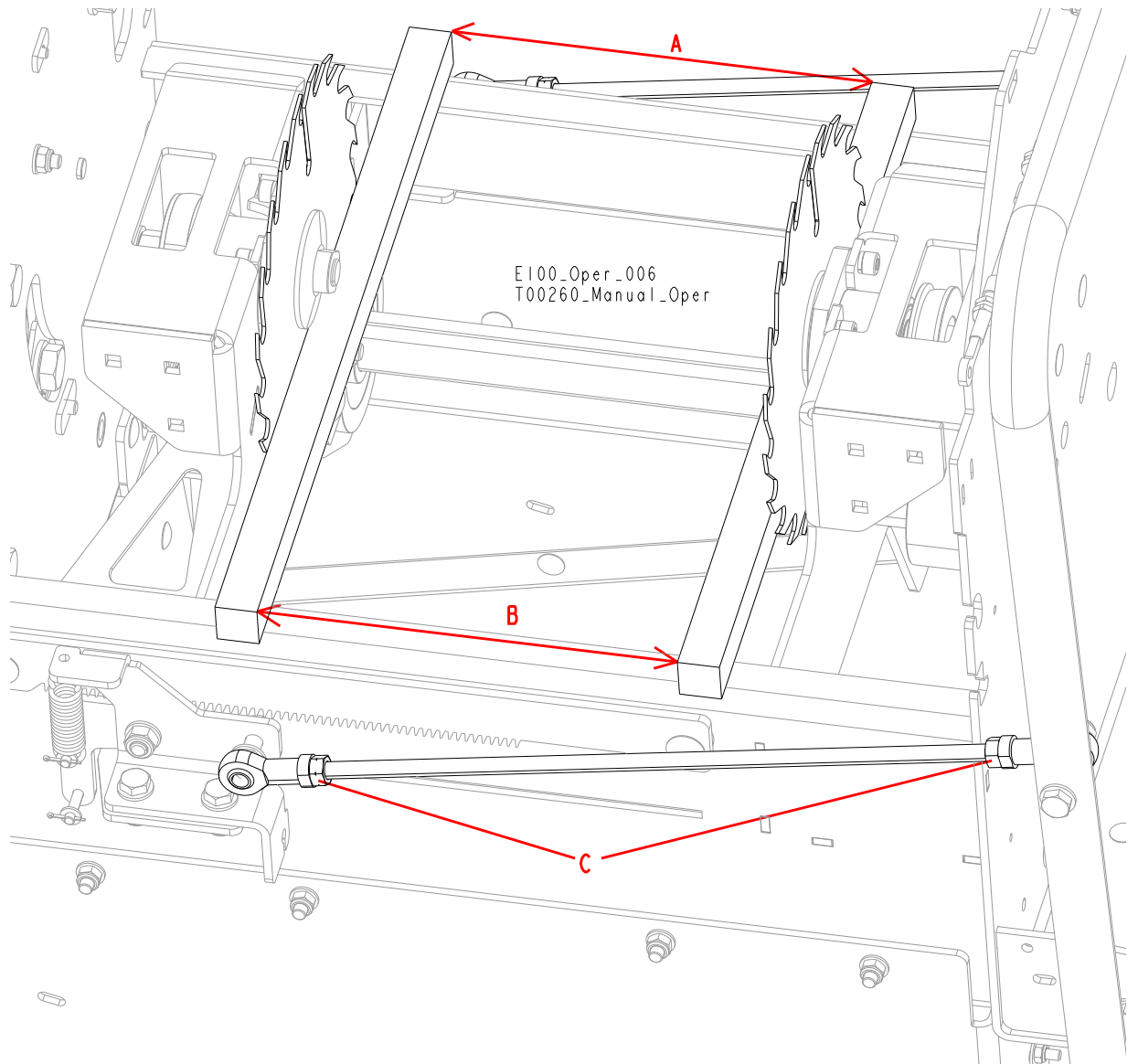


FIG. 3-8

3.2.3 Blade Position Lock Adjustment

- Using the nuts shown below, adjust the pawl linkage tension so that the pawl interlocks with the toothed bar.

See Figure 3-9.

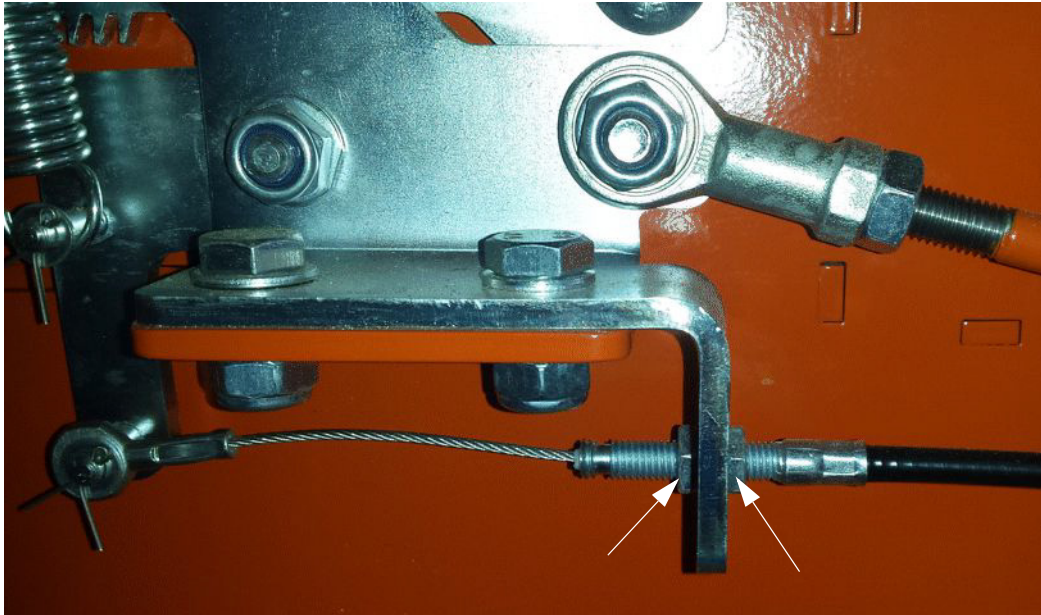


FIG. 3-9

See Figure 3-10.

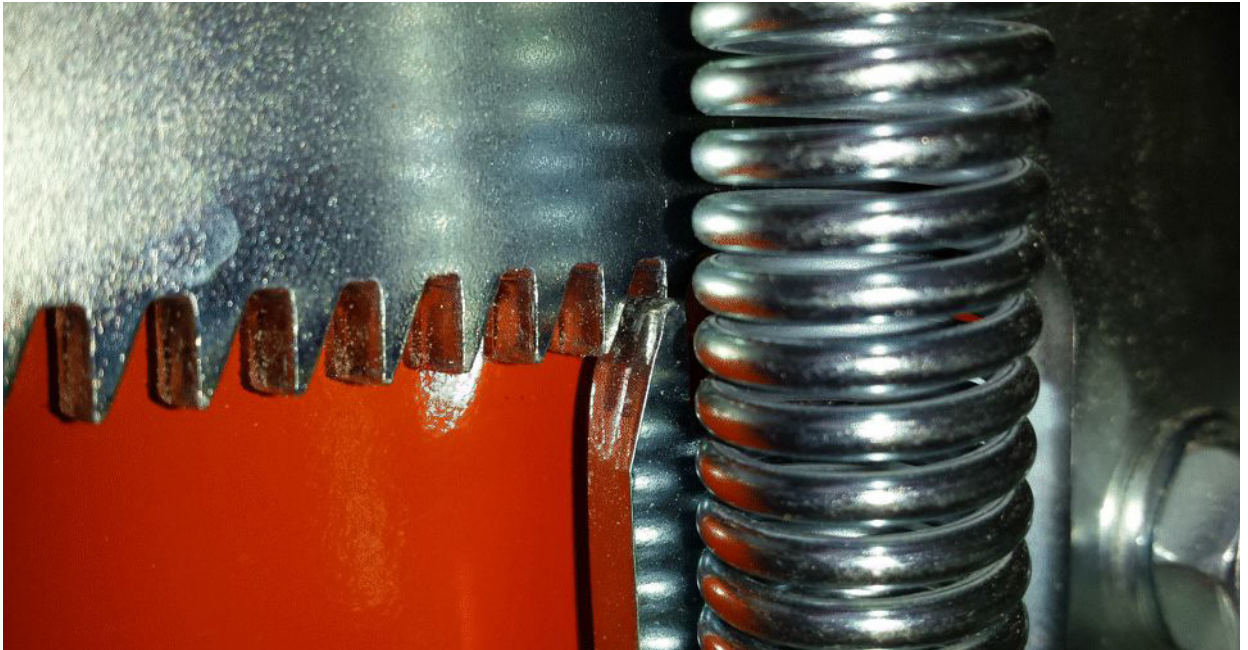


FIG. 3-10

3.2.4 Adjustment of the Cutting Width Setting System

6. Toothed Bar Adjustment

To position properly the toothed bar:

- Place a 100x100 (4"x4") block between the blades. Clamp the block by moving the blades in.

See Figure 3-11.



FIG. 3-11

- Loosen the nuts on the toothed bar mounting bolts (see the figure below).
- Again, clamp the block by moving the blades in.
- Position the toothed bar so that the pawl tooth each time enters any cut-out between the teeth of the bar.
- Tighten the nuts on the toothed bar mounting bolts.
- Remove the block.

See Figure 3-12.

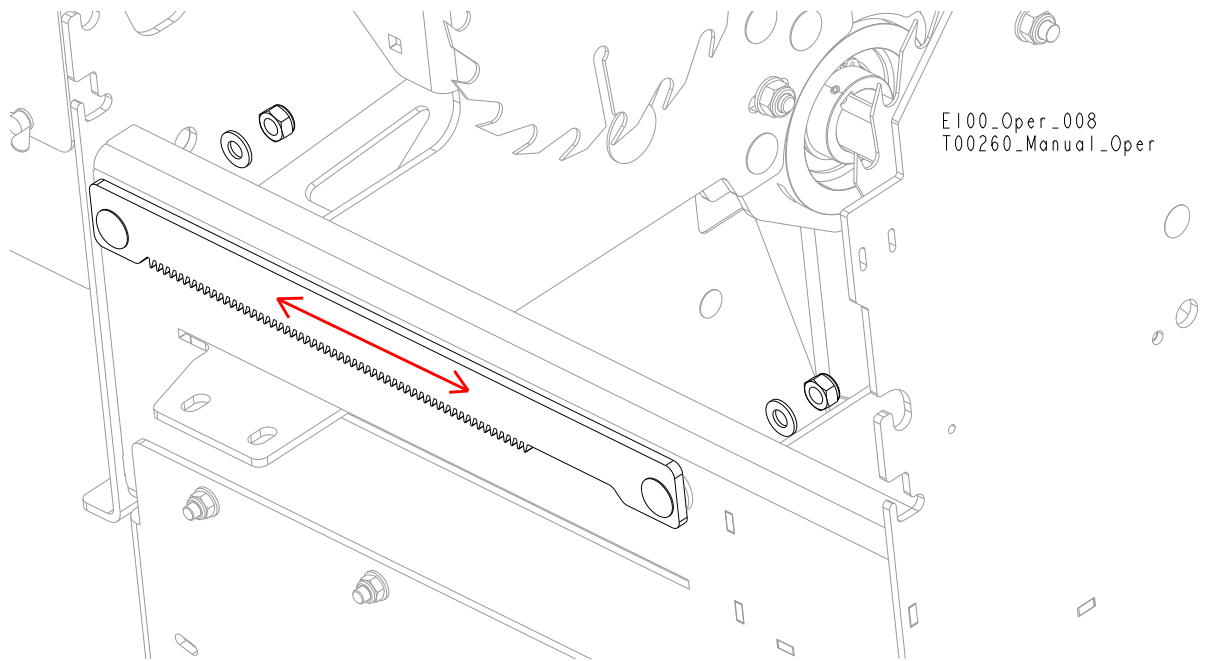


FIG. 3-12

See Figure 3-13.

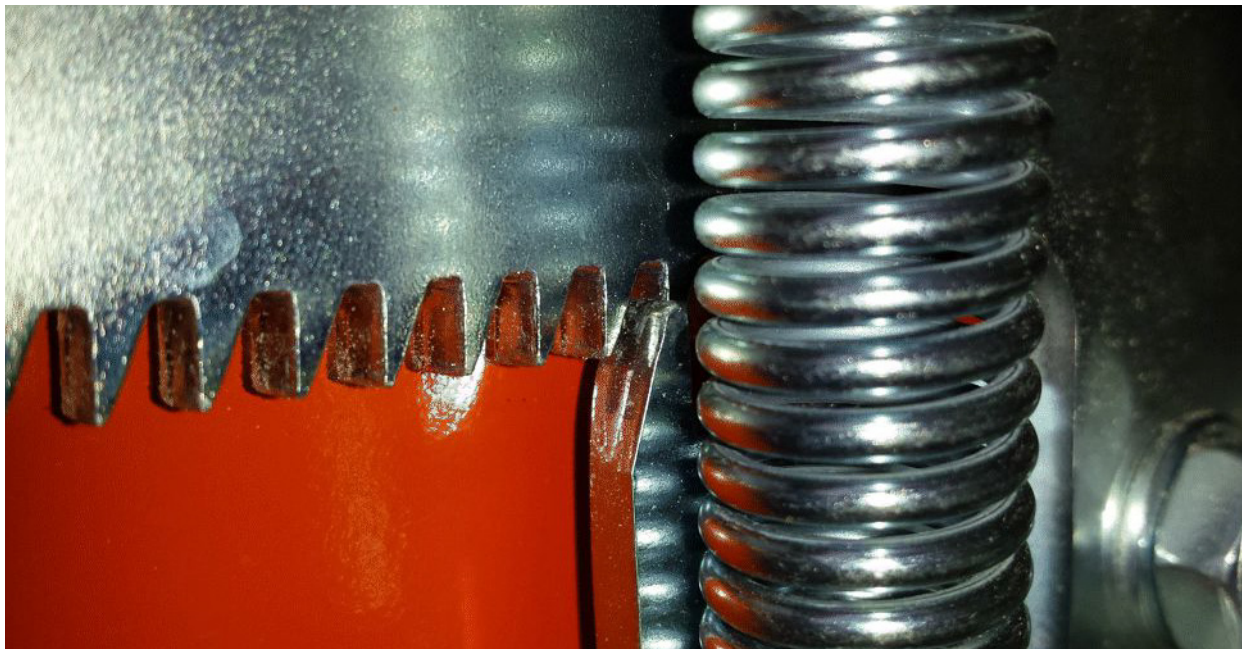


FIG. 3-13

- Make sure the pawl tooth is not beyond the toothed area of the bar when the blade is moved all the way in and out. See the figure below where the toothed bar is improperly set. If the pawl tooth does not mesh with the toothed bar cut-outs, move the toothed bar right or left and readjust.

See Figure 3-14.

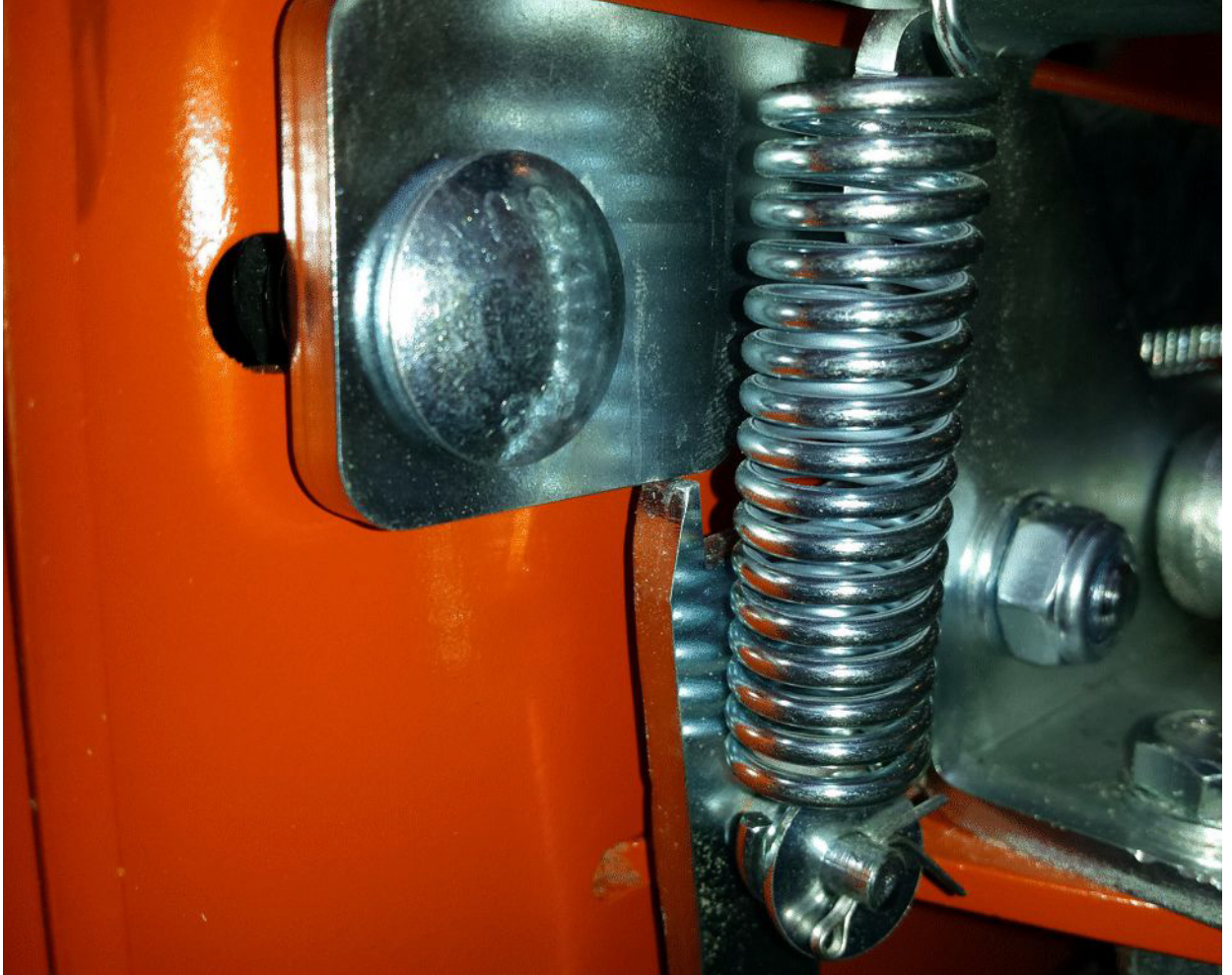


FIG. 3-14

- After performing the adjustment steps described above, check if the scale indicates the true

distance between the blades (100 mm). Read this value from the side of the motor/engine.



FIG. 3-15

If the value read on the scale is different than 100 mm, adjust the scale as described below.

7. Scale Adjustment

- Loosen the mounting bolt nut (A) shown in the figure below.
- Slide the scale so that it indicates the correct value (100 mm).
- Tighten the mounting bolt nut (A).

3 INSTALLATION

Edger Setup

See Figure 3-15.

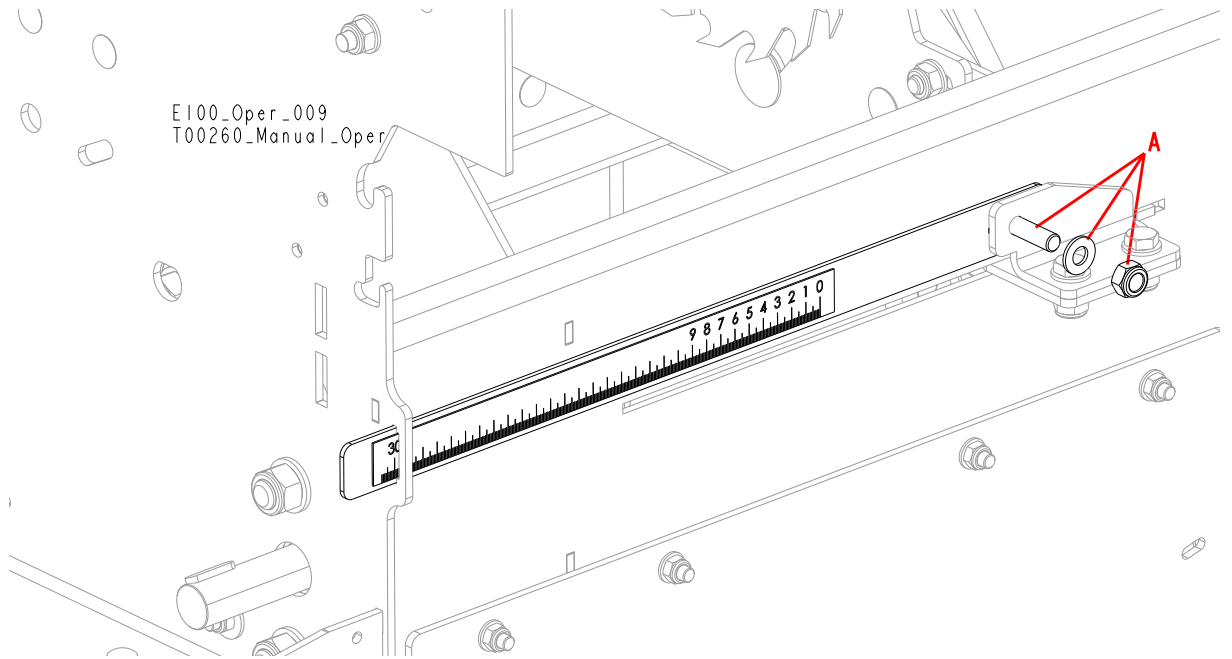


FIG. 3-16

3.3 Installation and Setup of the Tables

3.3.1 Table Installation

- Remove the knobs (A) from the table.

See Figure 3-17.

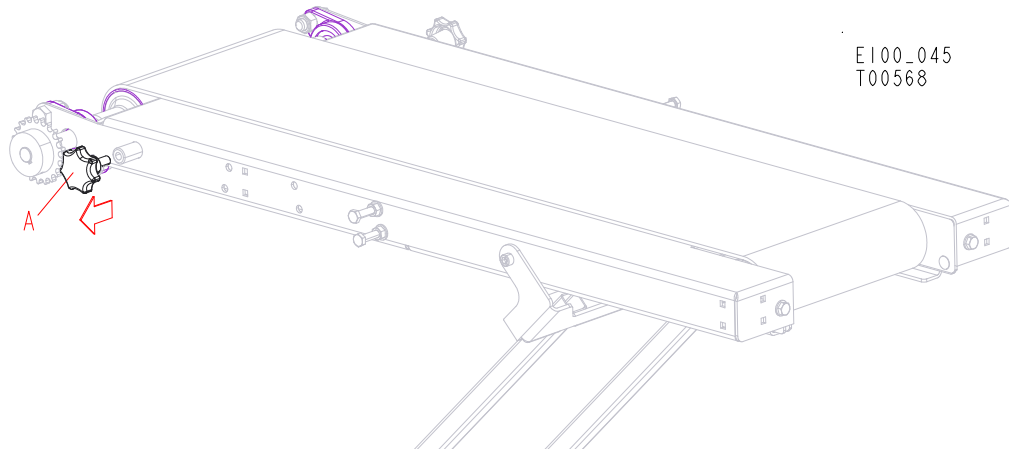


FIG. 3-17

- Remove the cotter pins (A) from the table support.

See Figure 3-18.

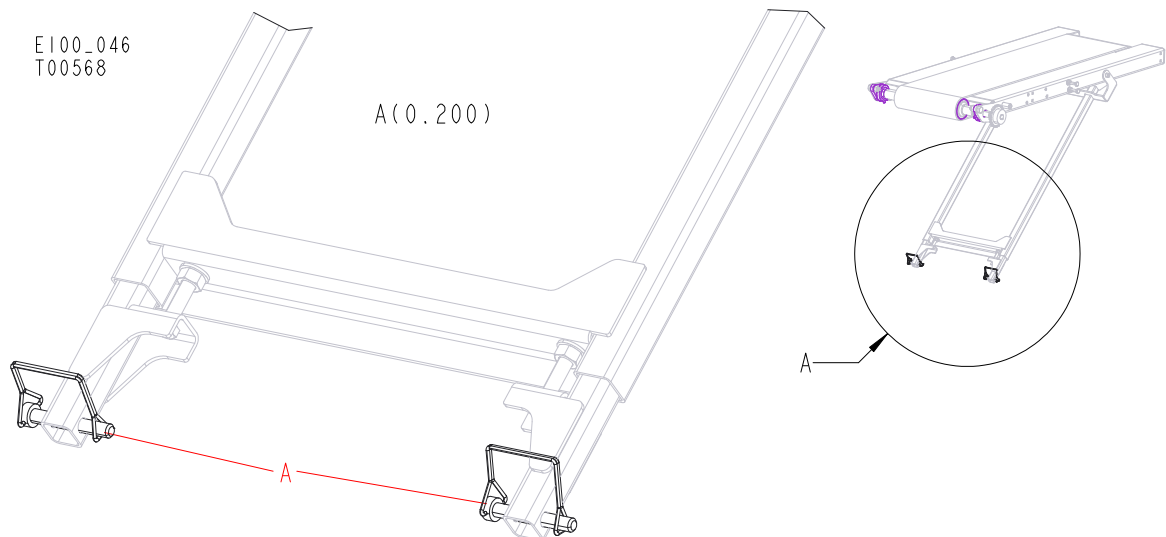


FIG. 3-18

3

INSTALLATION

Edger Setup

- Unbolt the fasteners (A) and remove the inspection cover (B) from the table drive guard.

See Figure 3-19.

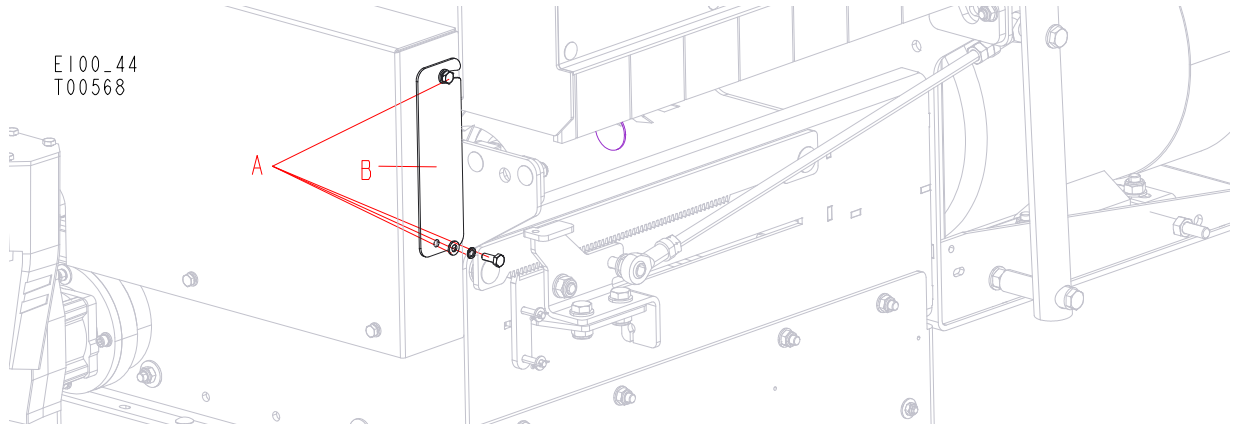


FIG. 3-19

- Use two persons to insert the table onto the machine body. Secure by installing the previously removed knobs.

See Figure 3-20.

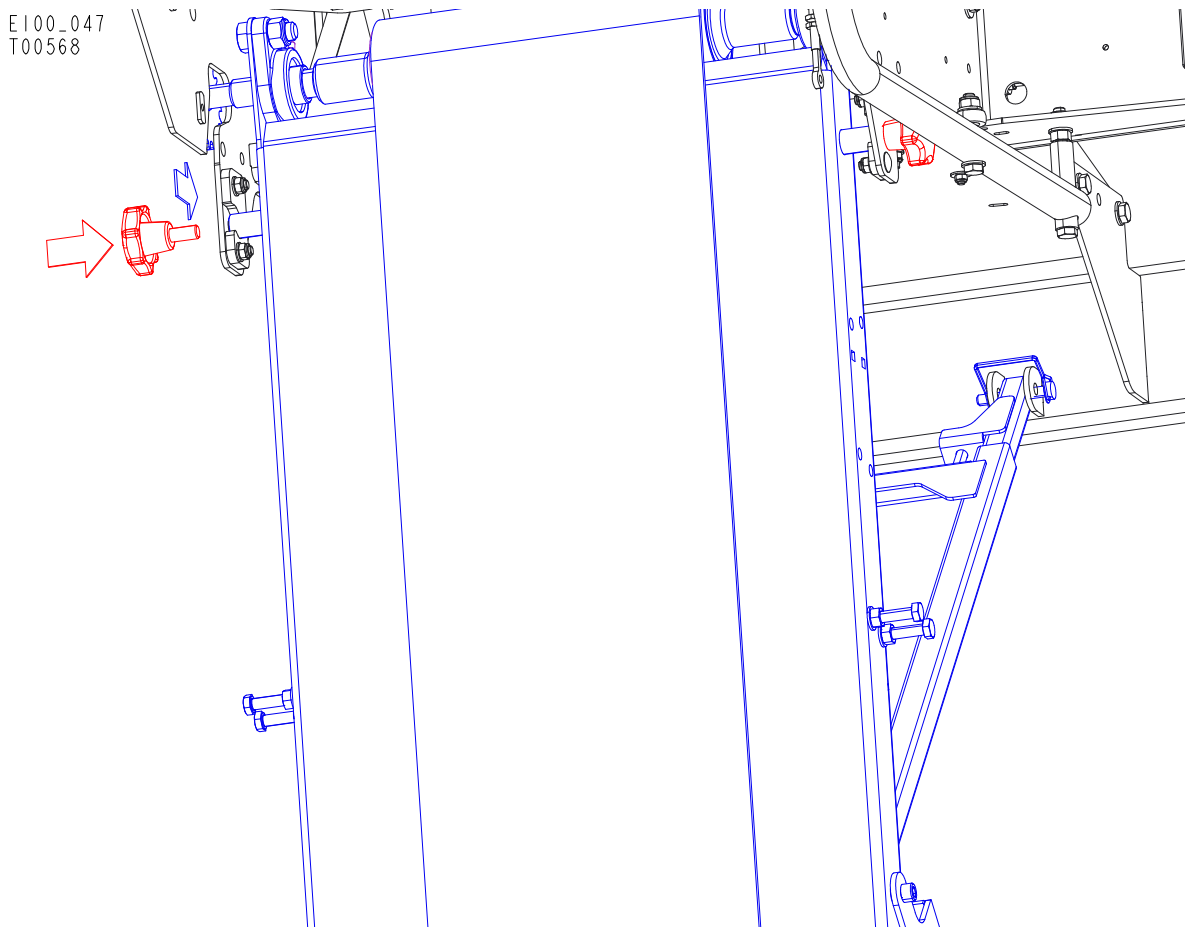


FIG. 3-20

- Place the tubes of the table support (A) between the brackets (B) on the main module base.

See Figure 3-21.

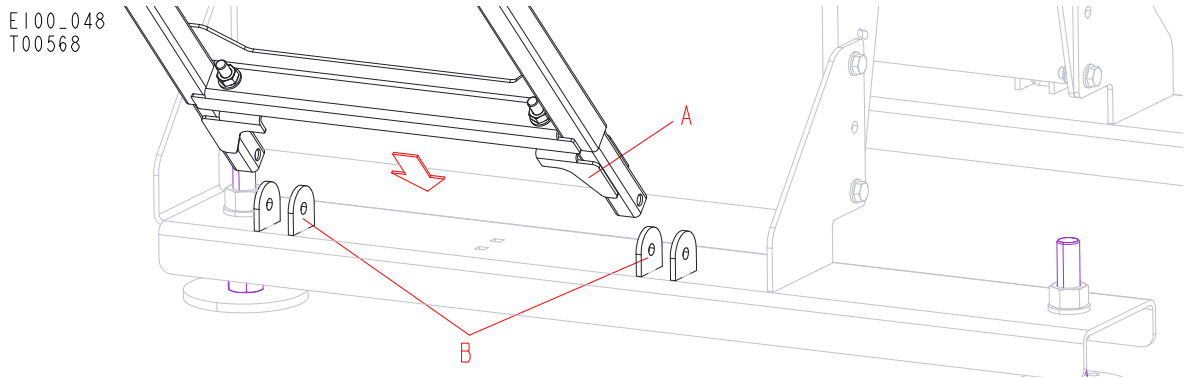


FIG. 3-21

- Secure the table support to the base with the cotter pins (A).

See Figure 3-22.

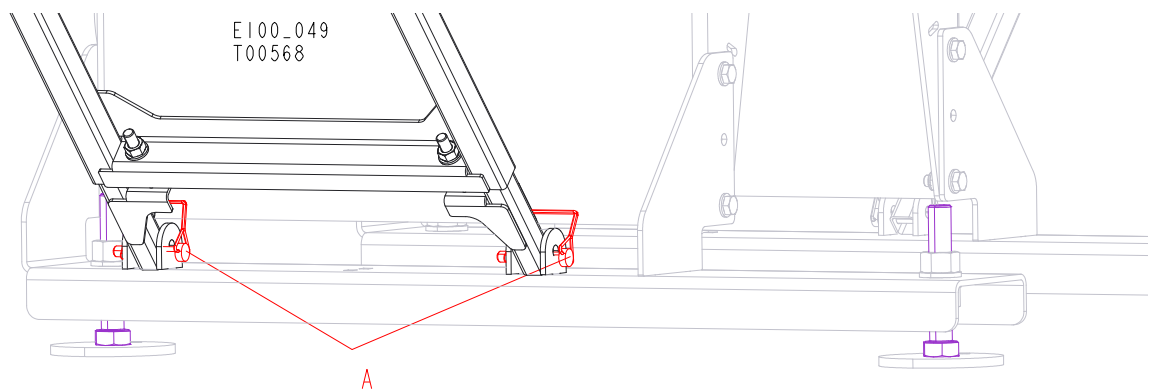


FIG. 3-22

3.3.2 Optional Table Installation

The complete list of the fasteners is included in the Parts List: [see Section 2.5](#) "Additional Table (Option)".

- Bolt the mounting plates (A) to the installed tables using the M8x25 bolts, washers and nuts shown in the figure below ("B").

See Figure 3-23.

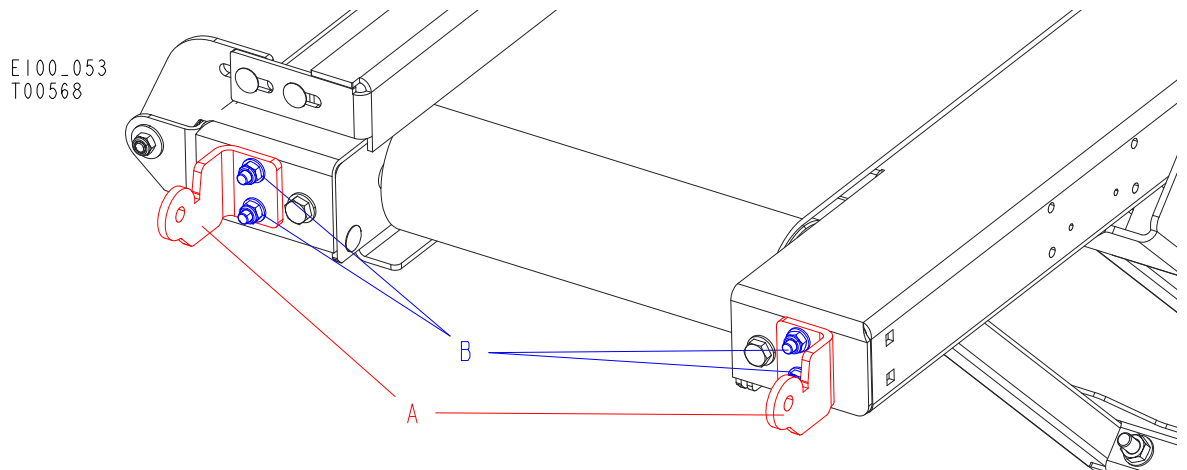


FIG. 3-23

- Insert the table extension (A) onto the installed mounting plates (B) and secure with the cotter pins (C).

See Figure 3-24.

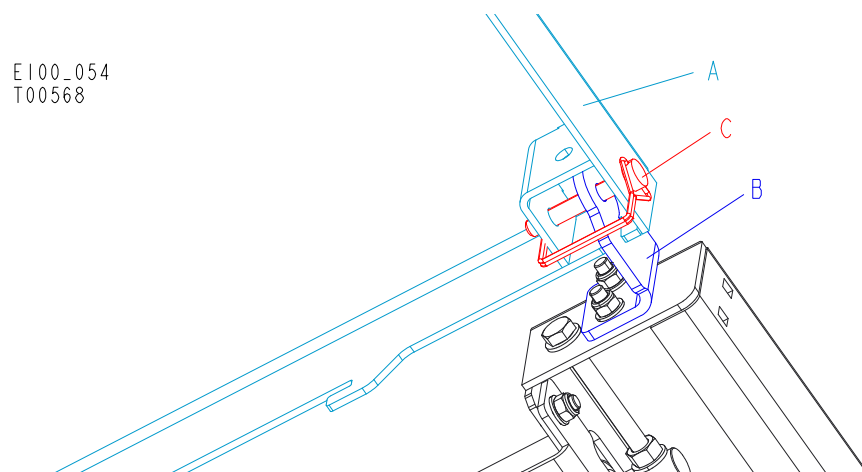


FIG. 3-24

- Adjust the table extension height by choosing a suitable hole in the leg.

See Figure 3-25.

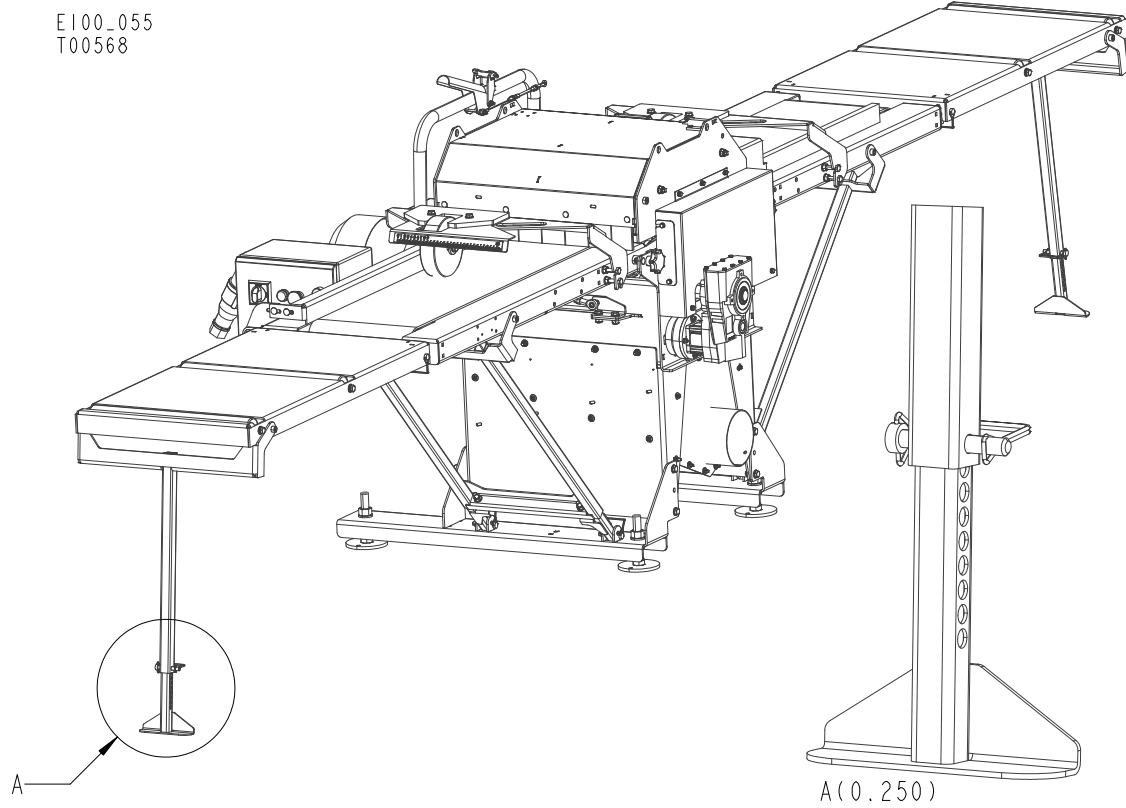


FIG. 3-25

3.3.3 Guide Bar Installation

- Mount the guide bar to the infeed table. The complete list of the fasteners is included in the Parts List: [Section 2.1](#) "Infeed Table"

See Figure 3-26.

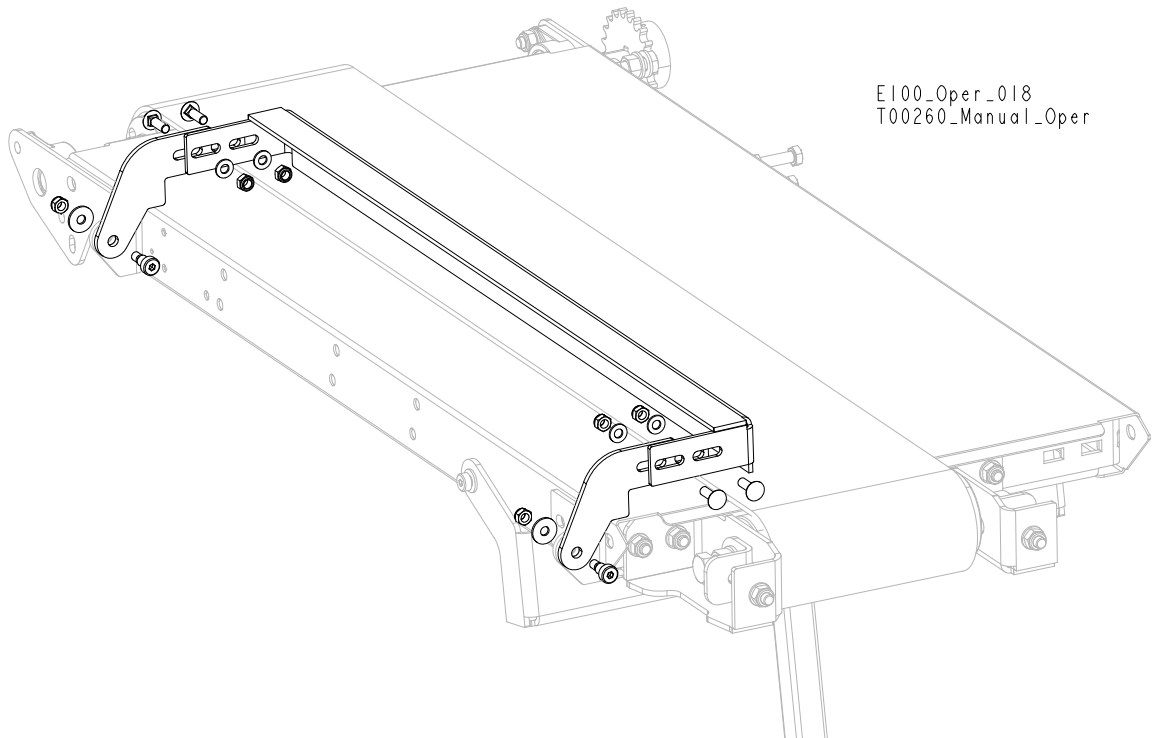


FIG. 3-26

3.3.4 Levelling the Tables with the Main Module

1. The main module and the tables must be levelled simultaneously to level the machine properly.
2. Use a level to perform levelling of the main module. Place the level at the locations A and B in the figure below. To level the main module, adjust the feet (C) shown below.

See Figure 3-27.

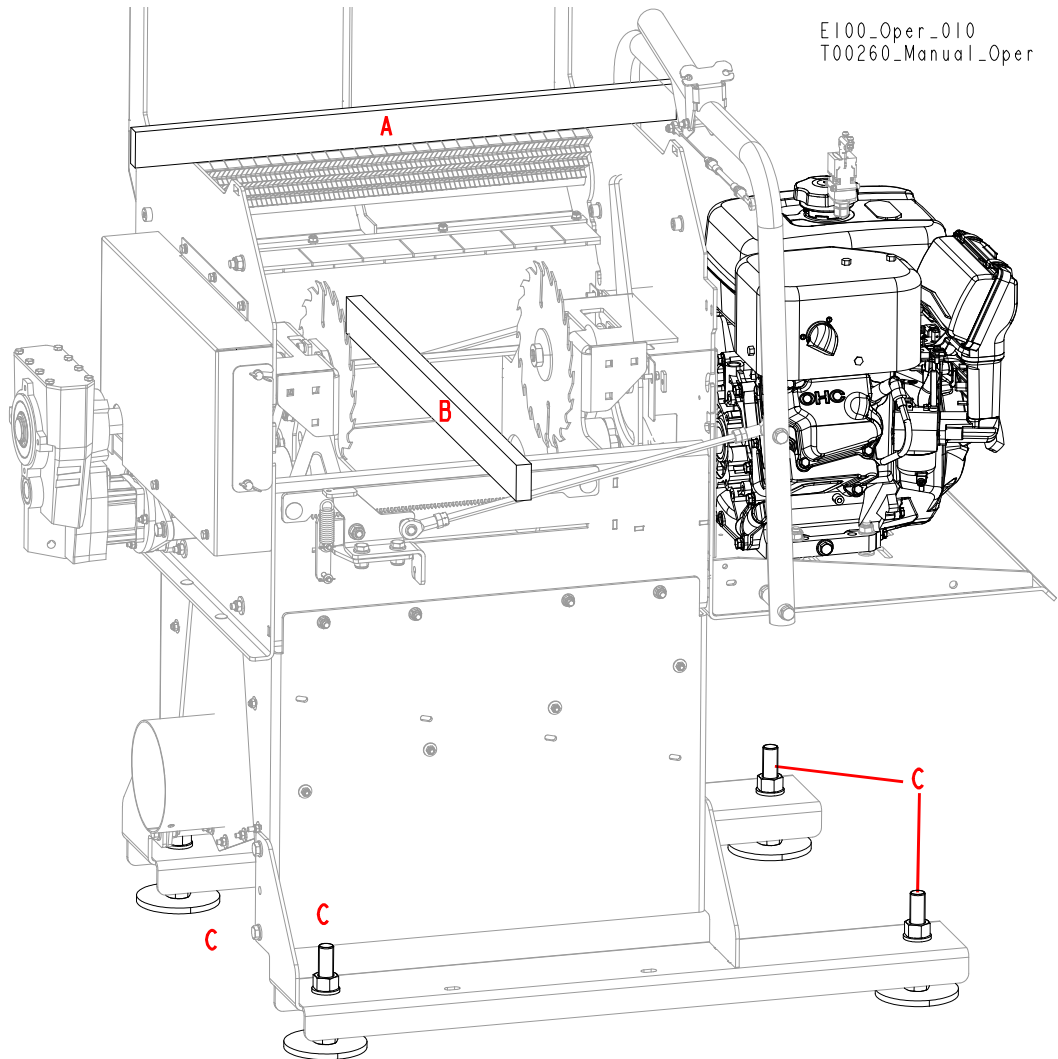


FIG. 3-27

See Figure 3-28.

3 INSTALLATION

Edger Setup

- Adjust the table vertically. To do this, first place the level on the table as shown below.

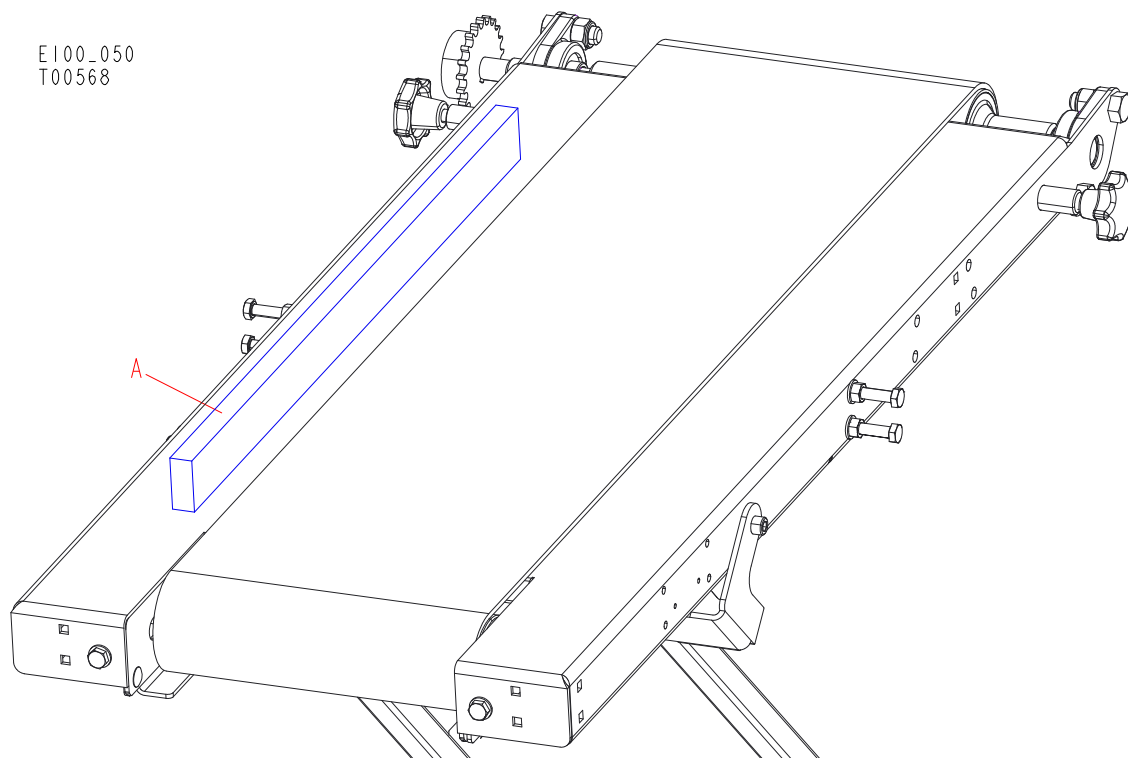


FIG. 3-28

- To adjust the table height, use the nuts "A". Be sure to adjust the two nuts evenly.

See Figure 3-29.

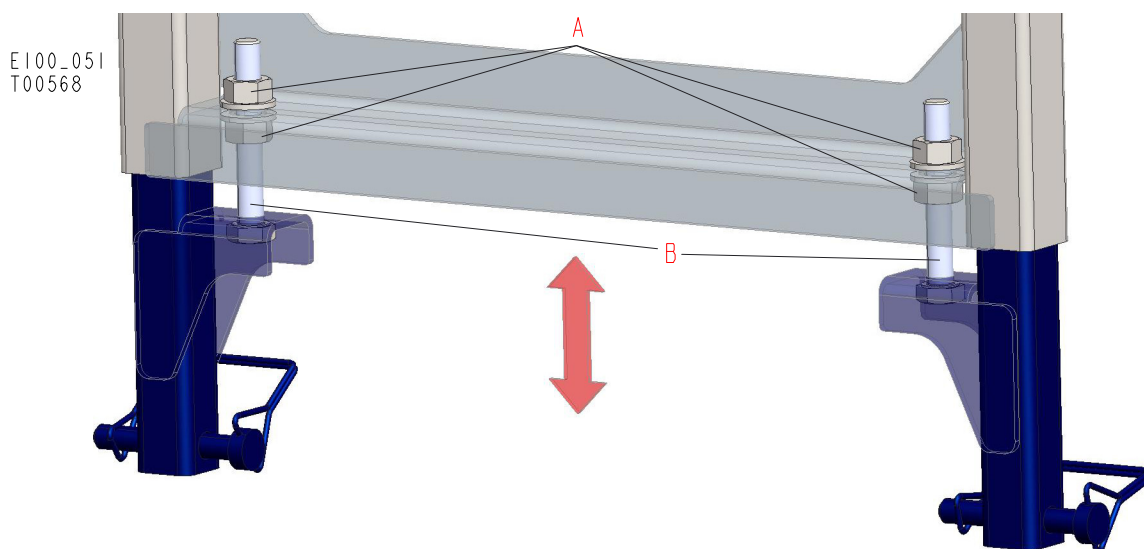


FIG. 3-29

3.3.5 Horizontal Adjustment of the Tables

See Figure 3-30.

To adjust the tables horizontally, perform the following steps:

1. Place a 3m flat bar (A) on the tables, against the fixed blade (C).
2. Adjust the tables in the horizontal plane so that the table belt edge (B) is parallel to the bar (A).

To adjust either table, use the fasteners at the plate with slotted holes located on the engine/motor side of the machine.

- Loosen the knob.
- Loosen the fasteners and move the table on the slotted holes.
- Tighten the knob and fasteners.

3. Place a flat bar (A) against the fixed blade (C). Then adjust the guide bar (D) using the fasteners "E" so that it is in line with the fixed blade (C).

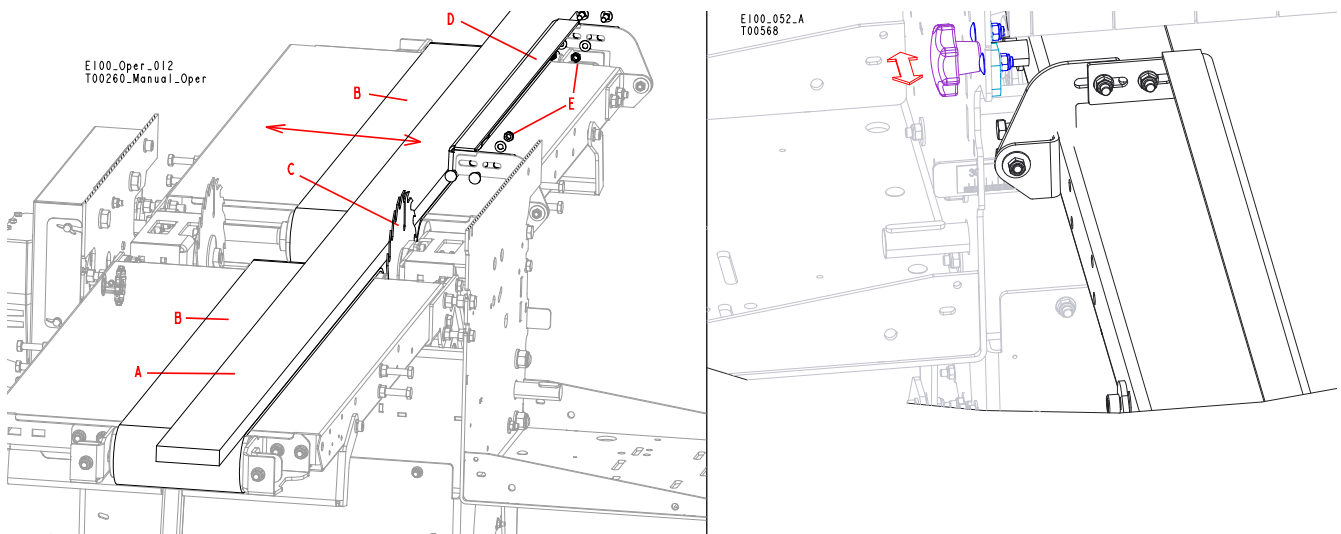


FIG. 3-30

3.3.6 Drive Pulley Sprocket Adjustment

After adjusting the tables in the horizontal plane, adjust the drive pulley sprocket so that it is aligned with the upper and lower chain idler sprockets. To perform this adjustment:

- Remove the table drive guard.

See Figure 3-31.

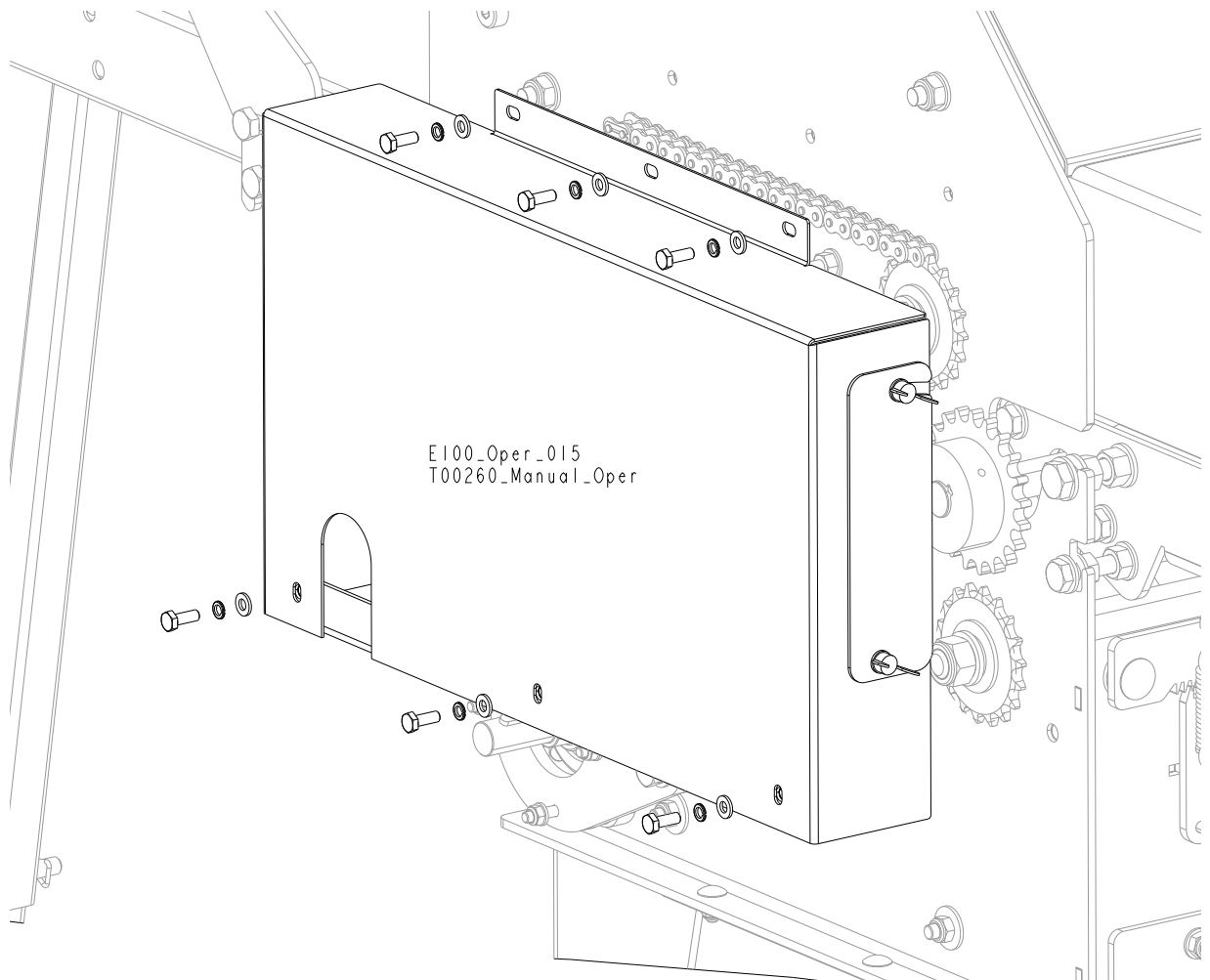


FIG. 3-31

See Figure 3-32.

- Loosen the set screw (A) of the drive pulley sprocket (B).
- Slide the sprocket (B) on the drive pulley shaft so that it is in line with the upper and lower chain idler sprockets.

See Figure 3-33.

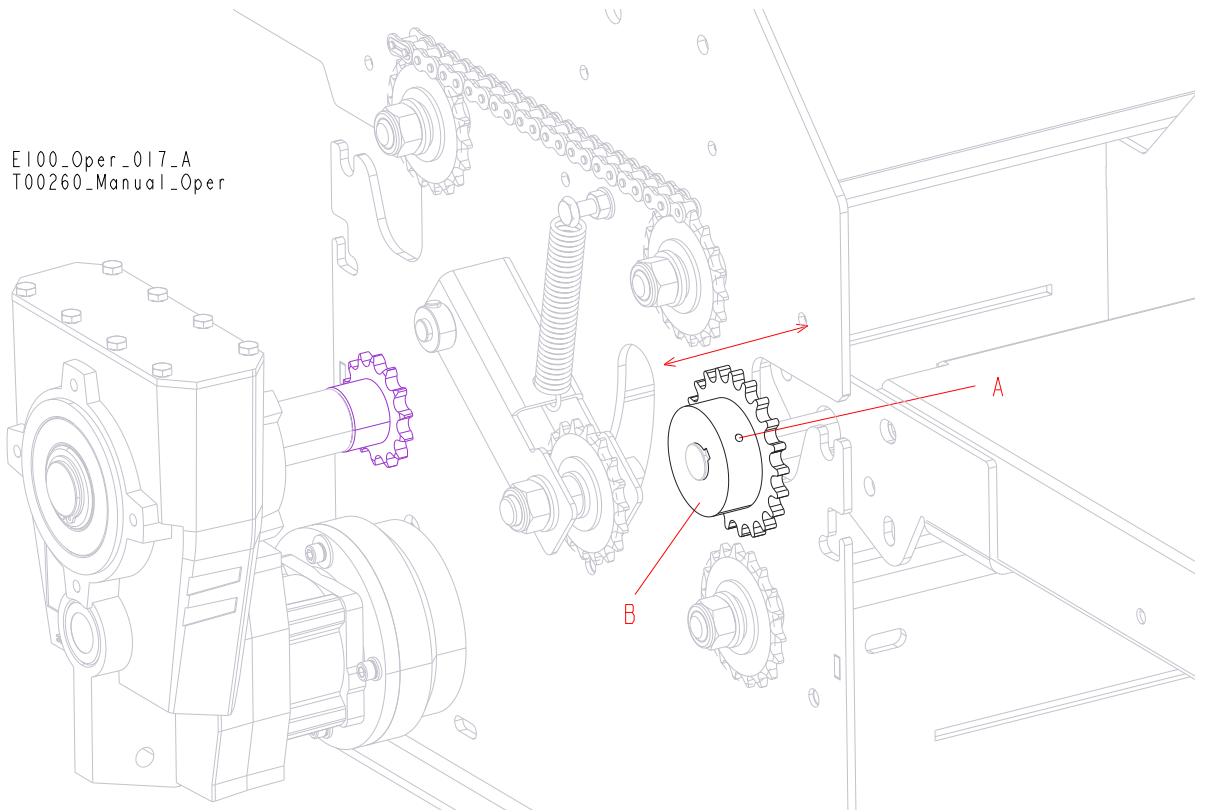


FIG. 3-32

3 INSTALLATION

Edger Setup

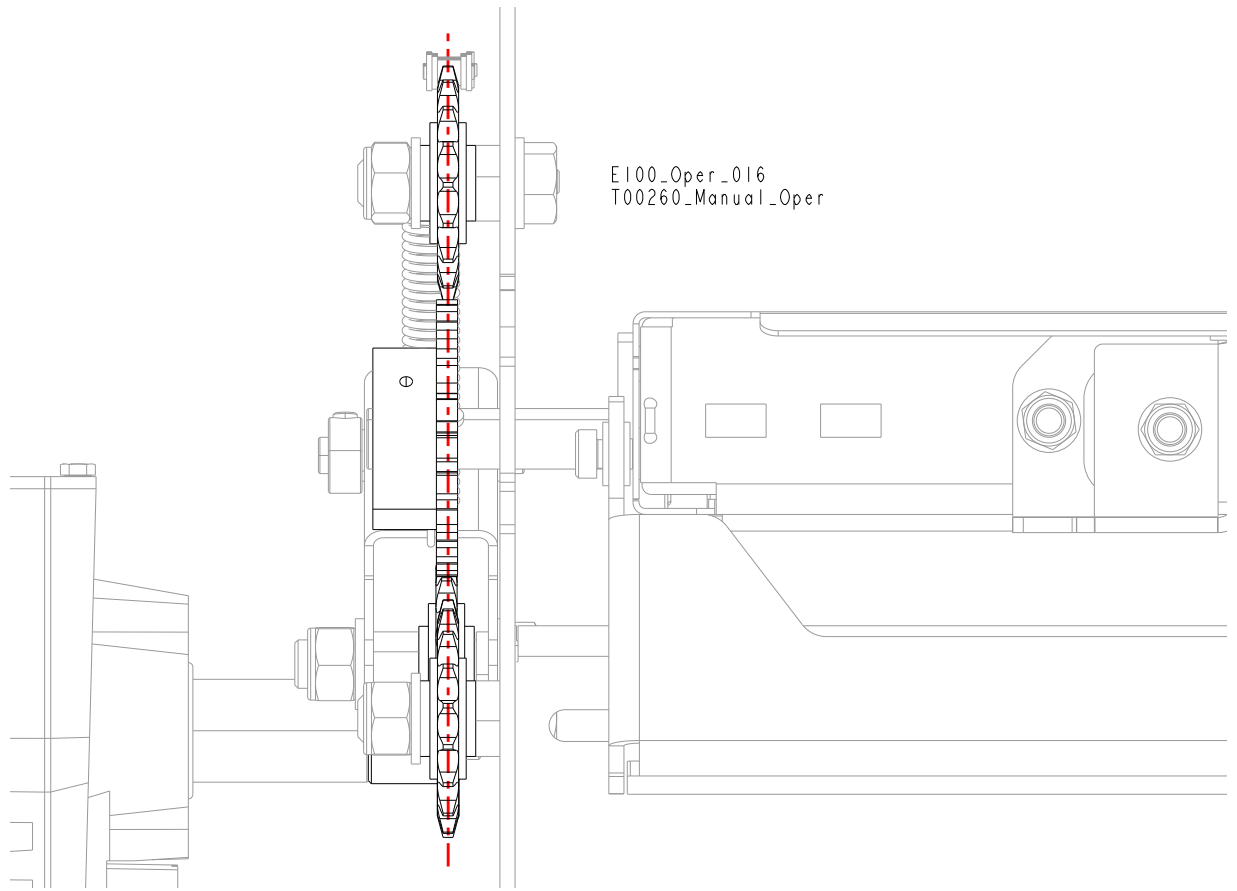


FIG. 3-33

3.3.7 Hold-Down Roller Installation

The complete list of the fasteners is included in the Parts List: [see Section 2.6](#) "Infeed Table Hold-Down Wheel".

- Mount the hold-down roller assembly using the fasteners A and B in the figure below. (To adjust, use the two nuts B.) Be sure the side plates of the hold-down roller mounting bracket (C) contact the bolt heads (A).
- To adjust the infeed table scale, loosen the fasteners D and move the scale bracket (E) in the horizontal plane.
- Position the scale so that "0" on the scale is in line with the inside surface of the guide bar.
- Retighten the nuts (D).

See Figure 3-34.

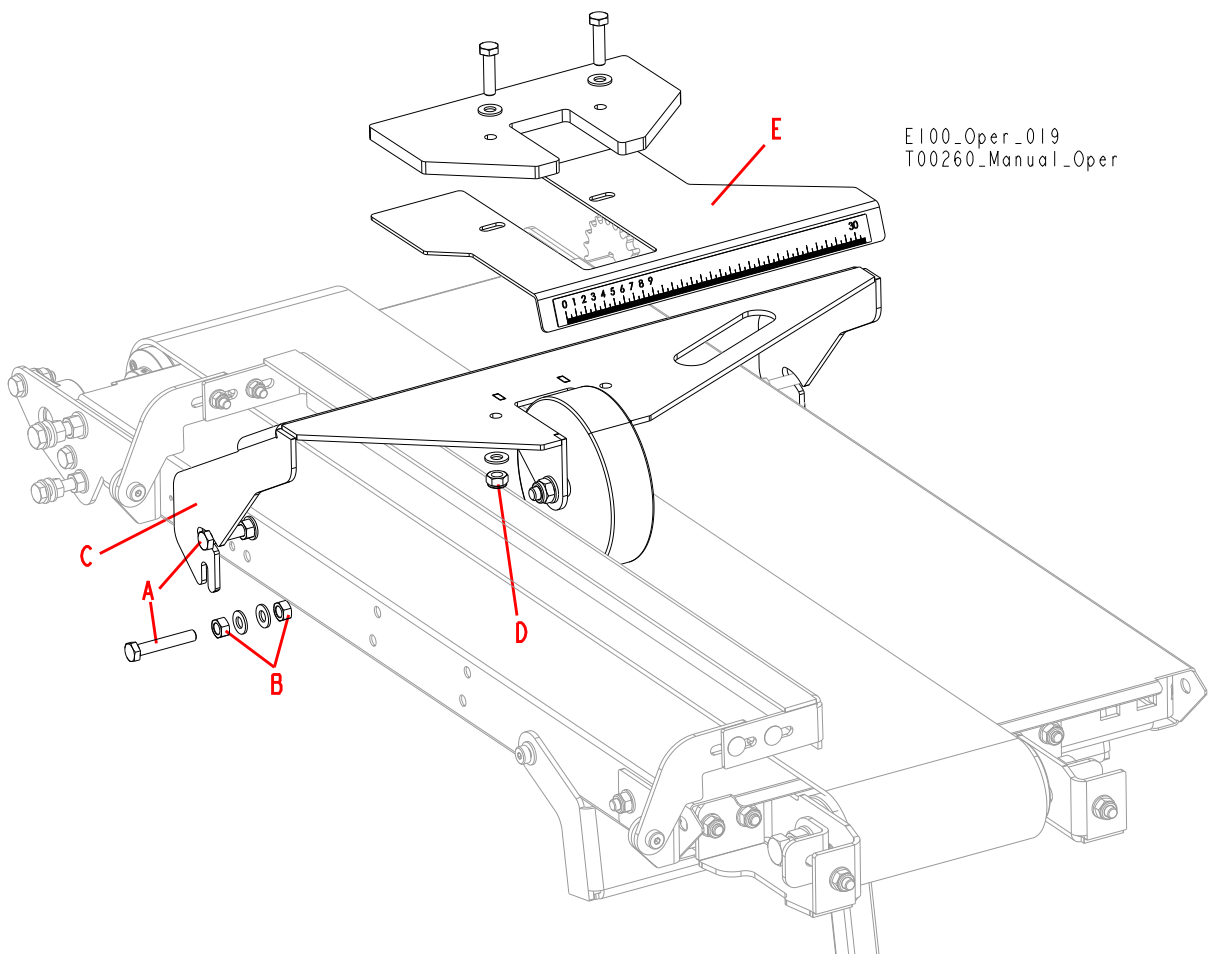


FIG. 3-34

3.3.8 Checking Rotation Direction of the Belt Drive Motor

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

! **IMPORTANT!** If the blade motor direction is correct, check that the belt conveyor motor rotation direction is as indicated by the arrow located on the motor gear. If the rotation direction is incorrect, interchange the wires indicated by arrows below.

See Figure 3-35.

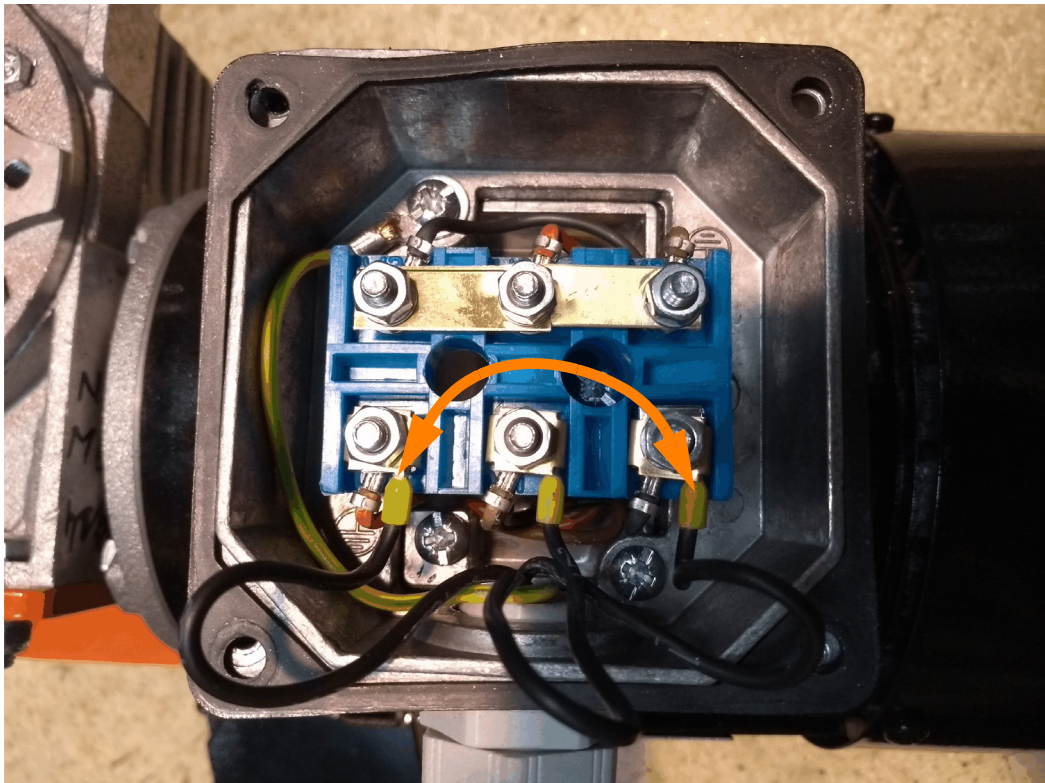


FIG. 3-35

3.4 Emergency Stop Switch Installation (CE Version Only)

- Install the emergency stop switch on the outfeed table using the provided mounting hardware.

See Figure 3-36.

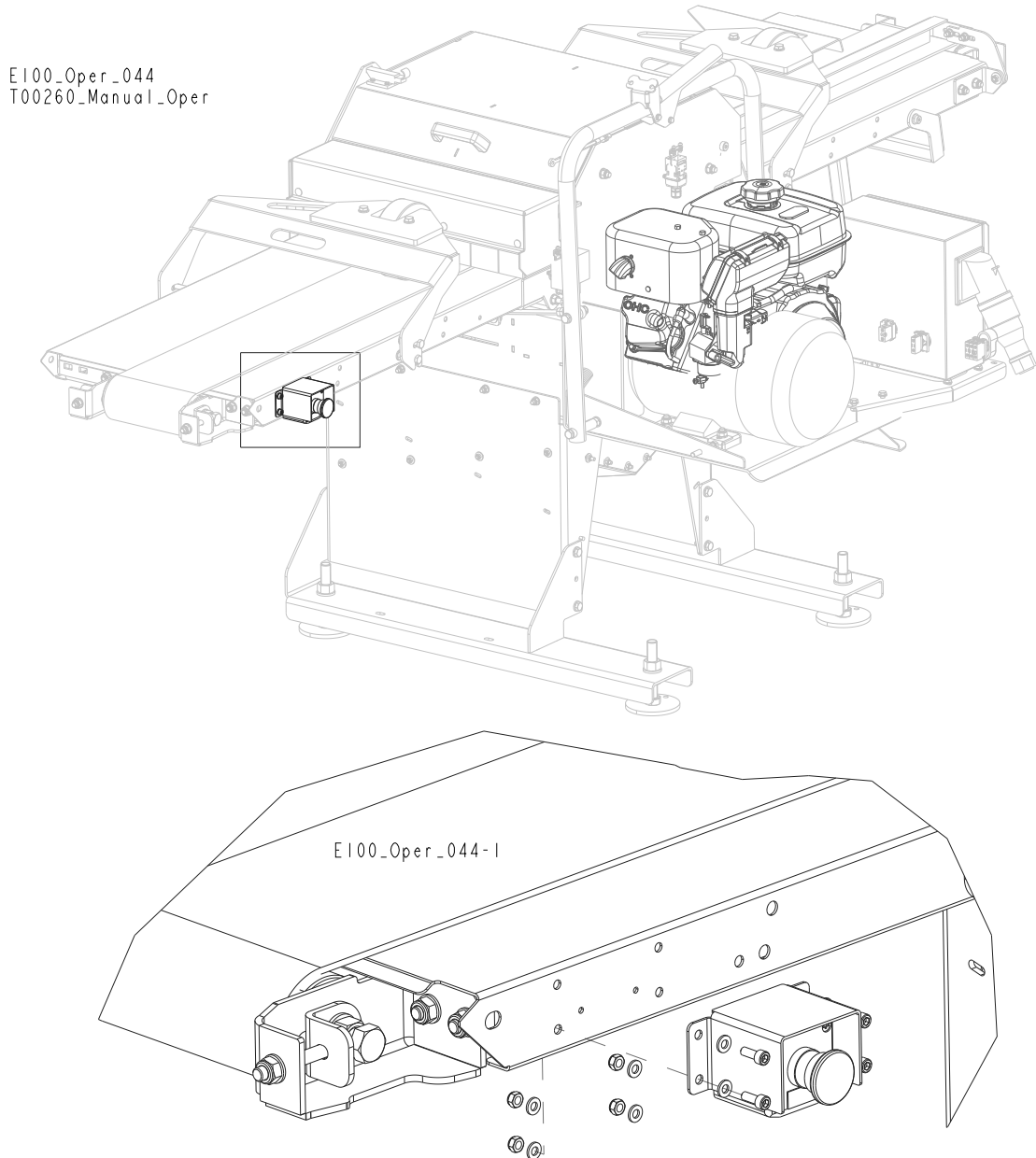


FIG. 3-36

SECTION 4 OPERATION

4.1 Edger Startup



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

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

NOTE: The machine cannot be started if either emergency stop button is on.

- Before starting the blades, check that the main switch of the machine is on.
- Make 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 machine.

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



WARNING! If the drive belt breaks, wait until all moving parts come to a complete stop. Failure to do so may result in serious injury or death.

- 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 towing the edger. Failure to do so may result in serious injury.

- Also, be aware that the blades are spinning each time the motor is ON. Always turn off the motor to stop the blade after you have finished using the edger. Before removing any covers or guards, make sure that all moving parts have come to a complete stop.



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 the machine with any guard or cover removed.

WARNING! Always shut off the motor/engine 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/engine and/or edger operation, press either emergency stop button.

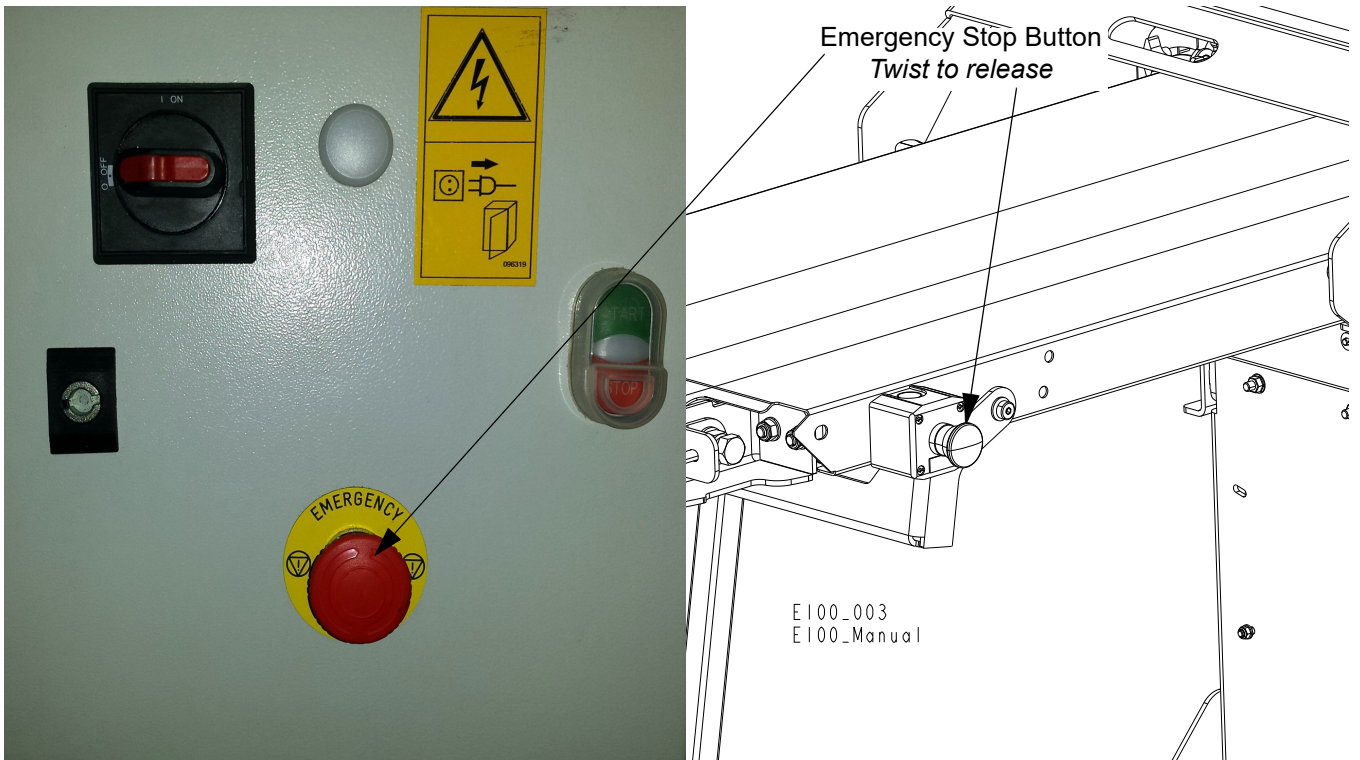


FIG. 4-1 EMERGENCY STOP BUTTON LOCATION

4.2 Control Overview

4.2.1 Control Panel of E100 Edgers with Electric Motor

See **Figure 4-1**. The control panel includes the following controls: START/STOP switch, main switch and emergency stop button.

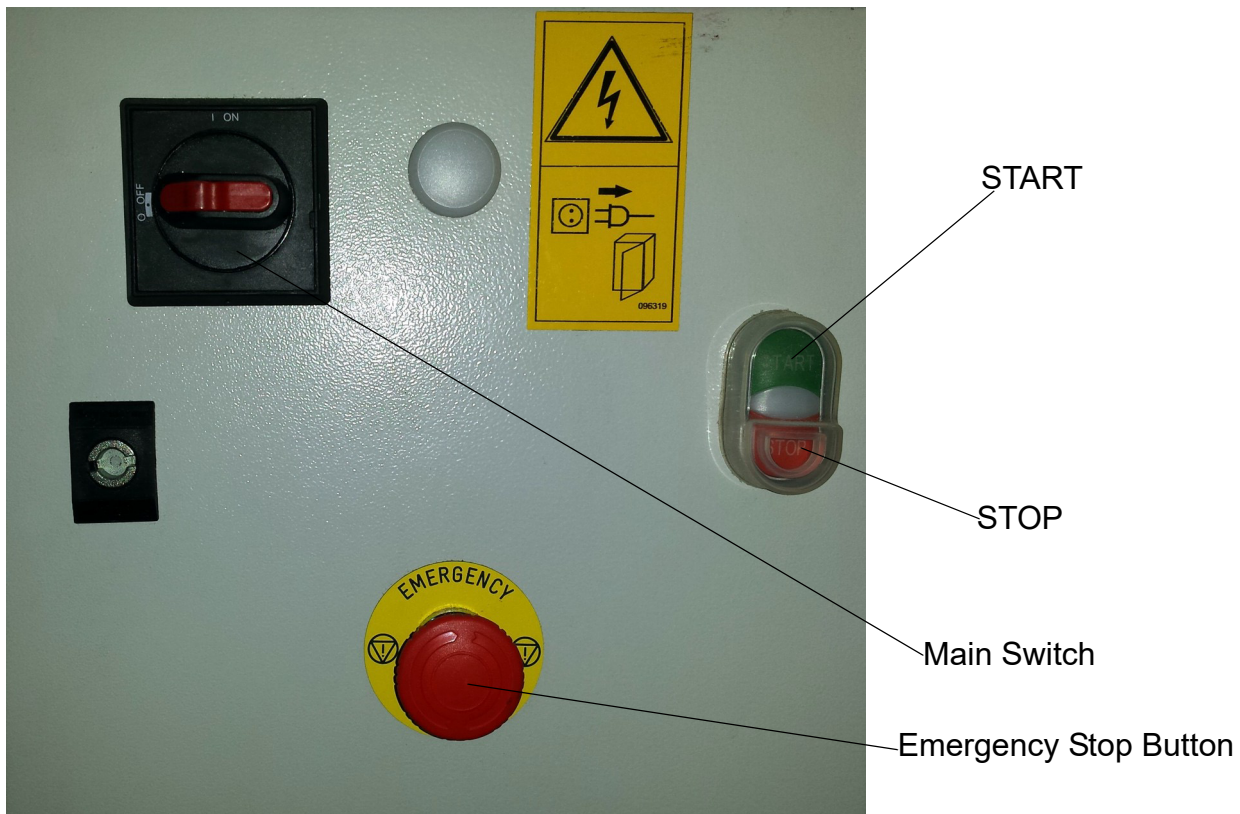


FIG. 4-2 CONTROL PANEL COMPONENTS

1. Blade Drive

To start the blade motor:

- Turn the main switch to the ON position,
- Press the START button.

To stop the blade drive:

- Push the STOP button,
- Turn the main switch to the OFF position.

2. Emergency Stop Button

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

4.3 Starting the Gas Engine

1. Open the fuel valve by moving the lever (A) to "On".
2. If the engine is cold, open the choke by pushing the lever (B) to "ON".
3. Move the throttle lever (D) to the halfway position.
4. Pull quickly the starting rope (C) to start the engine.
5. After about ten seconds of engine operation, you can close the choke by moving the choke lever to the "OFF" position and decrease the engine revolutions.
6. Let the engine idle for about 1 - 2 minutes.

See Figure 4-2.

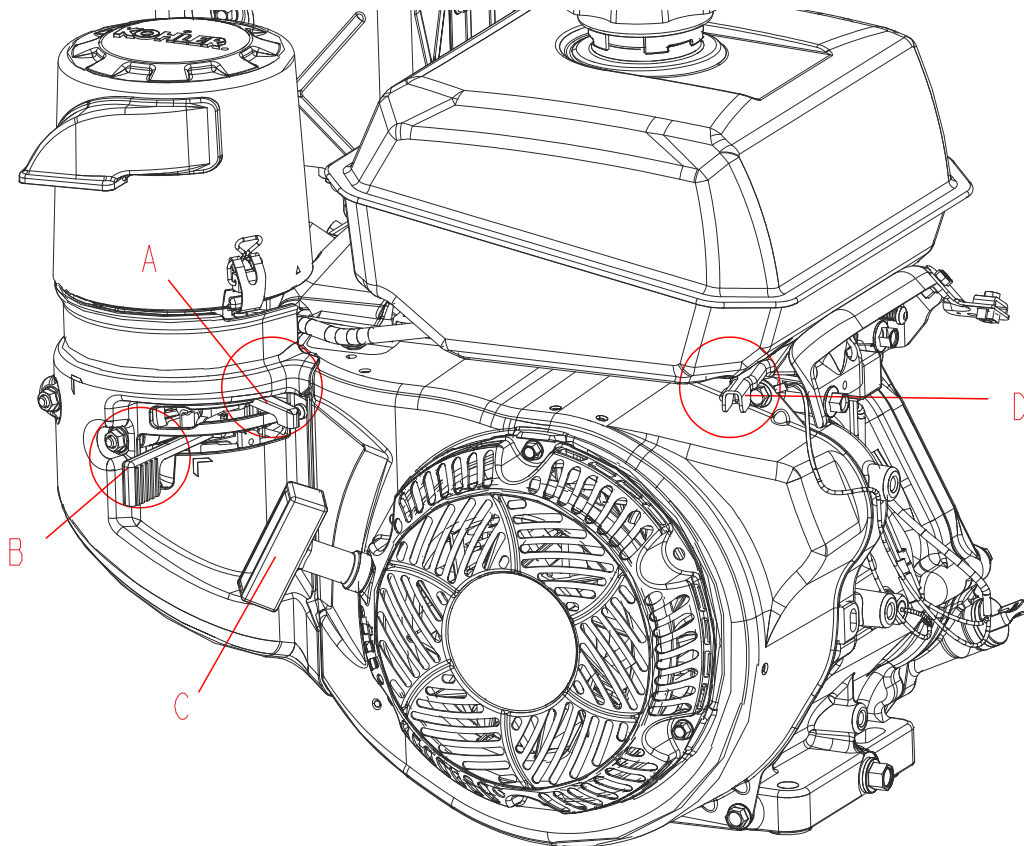


FIG. 4-3

7. Engage the blade drive by moving the tensioner lever from the position A (neutral) to the position B.

See Figure 4-3.

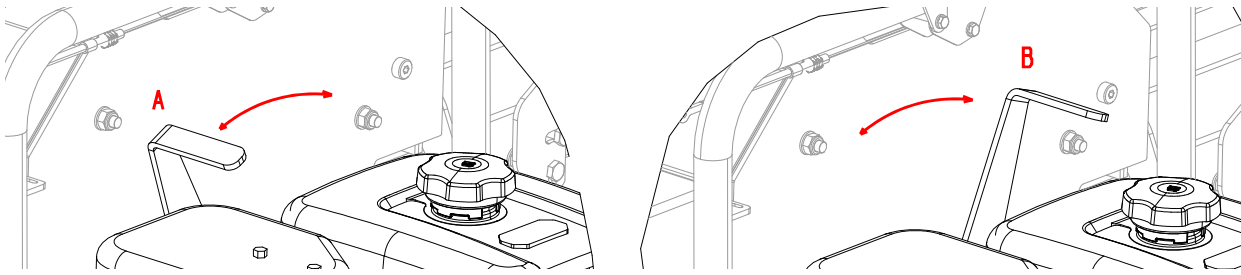


FIG. 4-4 ENGINE CONTROLS

8. Increase the engine revolutions per minute to the maximum value using the throttle lever (D).
9. After sawing, decrease the engine revolutions, move the tensioner lever to the neutral position and let the engine idle for about 1 minute before turning it off.

See the manufacturer's engine manual for further instructions.

4.4 Edging 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.

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

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 machine. Failure to do so may result in serious injury.

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



WARNING! Always shut off the motor/engine to stop the blade whenever the edger is not in use. Failure to do so may result in serious injury.

WARNING! Always wear protective clothing as well as eye, ear, respiration and foot protection when operating the edger. Failure to do so may result in serious injury.

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

After performing the pre-operation check, you are ready to begin edging boards.

1. Start the machine.
2. Place the board on the infeed table.
3. If one side of the board is edged, place the board with the squared edge against the guide bar.
4. Set the desired distance between the blades.
5. Push the board into the edger until the feed system takes the board.



IMPORTANT! If at any time you need to immediately stop the motor/engine and/or edger operation, press either emergency stop button (at the front or rear of the machine).

6. Repeat the edging procedure described above for the remaining boards that will be edged.
7. Shut down the machine after finishing the edging operation.

SECTION 5 MAINTENANCE AND ALIGNMENT



WARNING! Before performing any service near moving parts such as: blades, pulleys, motors, belts and chains, first turn the main switch to the "0" position and then disconnect the power cord.



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.

5.1 Replacing the Blades

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



DANGER! Before changing the blades, make sure the mounting bushings of the blades have come to a complete stop and the motor/engine is shut off. Turn the main switch to the "0" position and disconnect the power cord. Failure to do so may result in serious injury.



WARNING! Always wear safety goggles, gloves and foot protection when handling the blades.

1. Open the blade cover.
2. Using a 24 flat wrench, lock the blade shaft (A) and remove the blade nut (B). (Turn left to remove the fixed blade nut; turn right to remove the movable blade nut.)

See Figure 5-1.

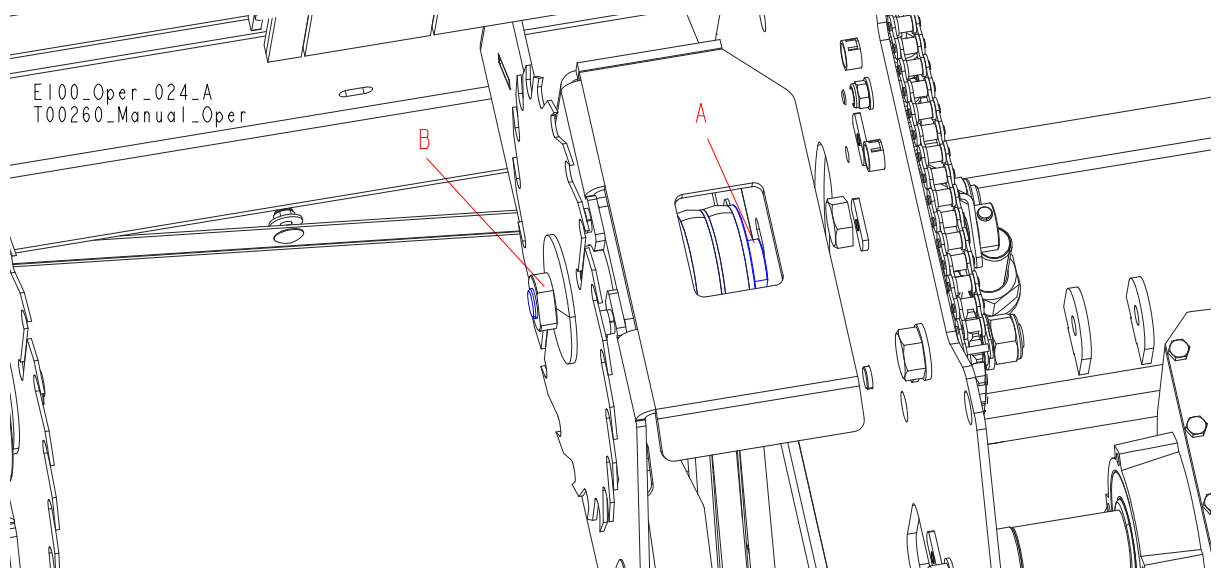


FIG. 5-1

3. Slide the blade from the shaft.

4. Install a new blade.
5. Reinstall the blade nut and tighten with the 24 wrench (turn right to tighten the fixed blade nut; turn left to tighten the movable blade nut).

5.2 Blade Drive Belt Tension



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



CAUTION! Never apply belt dressing as this will damage the belt and cause early belt failure.



CAUTION! Use only belts of the same type as the original belts installed at the factory.

1. Check the drive belts for wear every 8 hours of operation and more frequently during the first 24-48 hours of operation. Tension or replace as necessary.
2. A new drive belt is tensioned properly if it has 6 mm deflection with a 5 kg deflection force. It is recommended that both belts be replaced when one of them is damaged.

To tension the drive belts properly:

- Open the blade cover,
- Locate and loosen the tensioning roller nut (A),
- Move the tensioning roller so that the belt has the required deflection value.
- Tighten the roller nut and close the blade cover.



CAUTION! Do not overtighten the drive belt. Overtightening may lead to premature belt and/or bearing wear.

CAUTION! If the drive belt tension is too low, it can result in: slipping of the belt on the pulley, blade jamming or stopping during sawing, blade bending and/or damage to the blades.

See Figure 5-2.

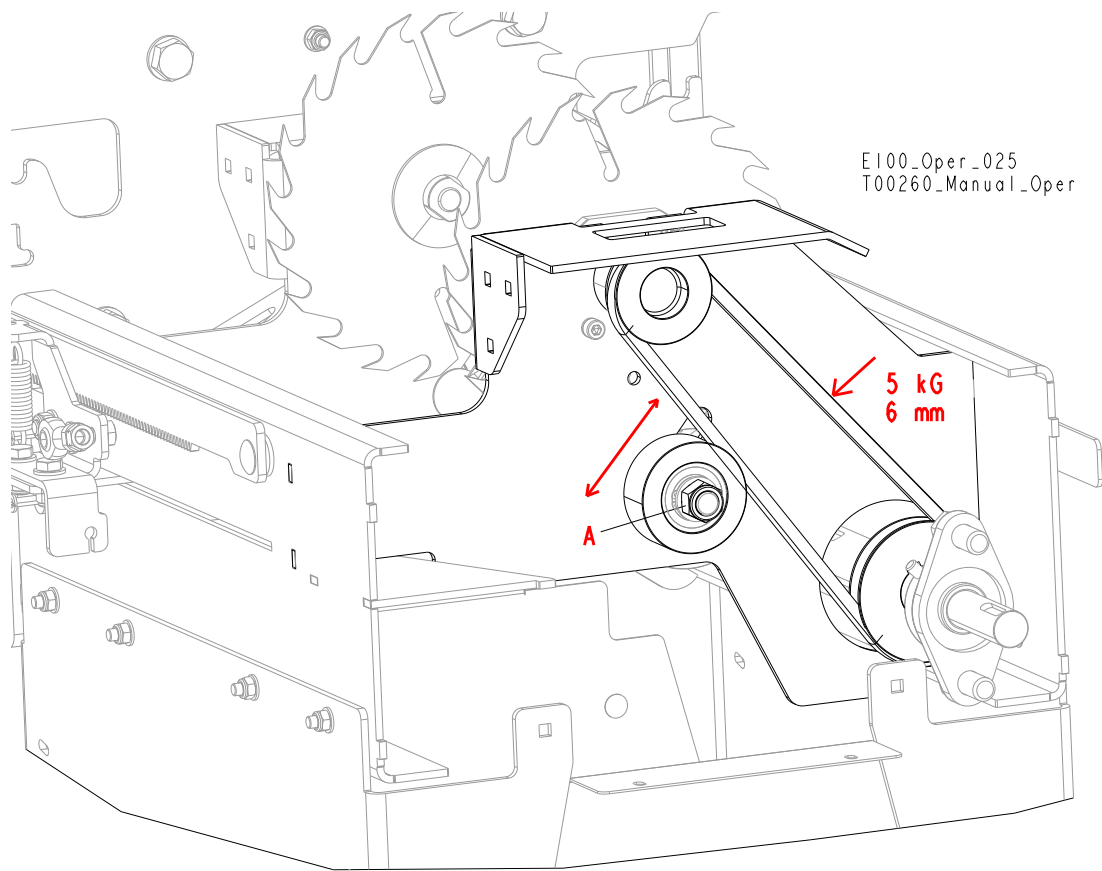


FIG. 5-2

5.3 Belt Tensioner Adjustment and Belt Replacement (Gas Engine)

1. Dismount the engine drive guard.

See Figure 5-3.

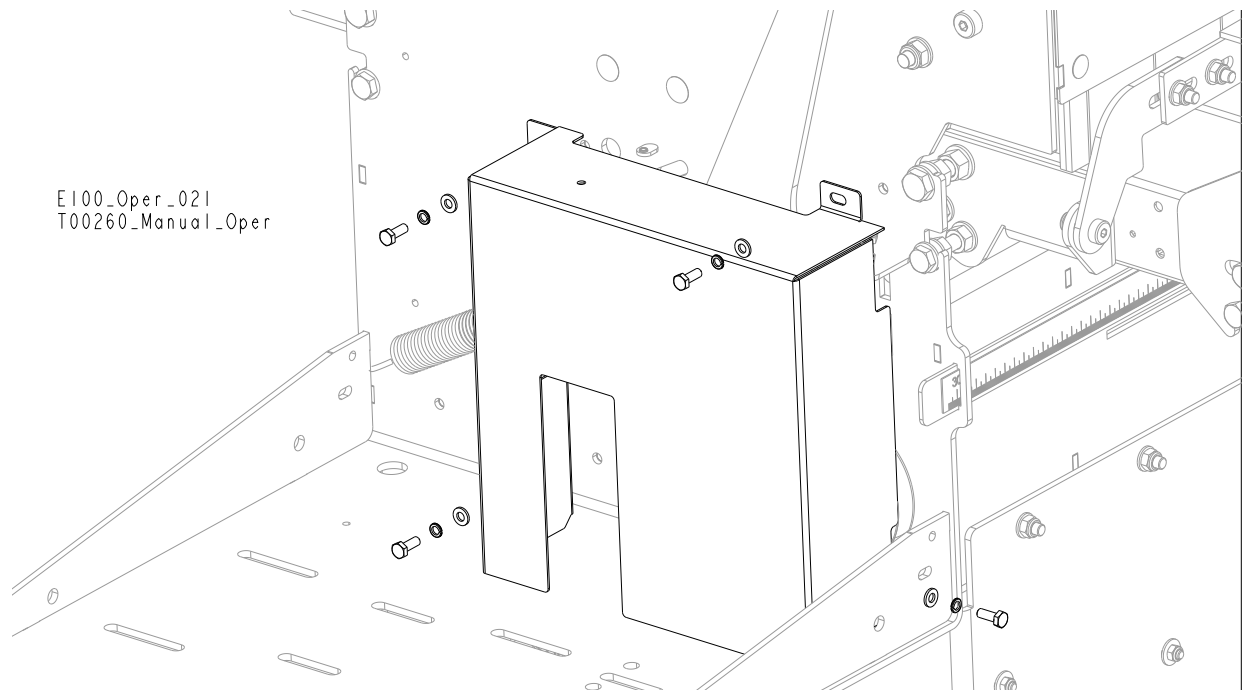


FIG. 5-3

See Figure 5-4.

2. Loosen four engine mounting nuts "A" shown below. Loosen the jam nuts "B" on the adjustment bolt "C".

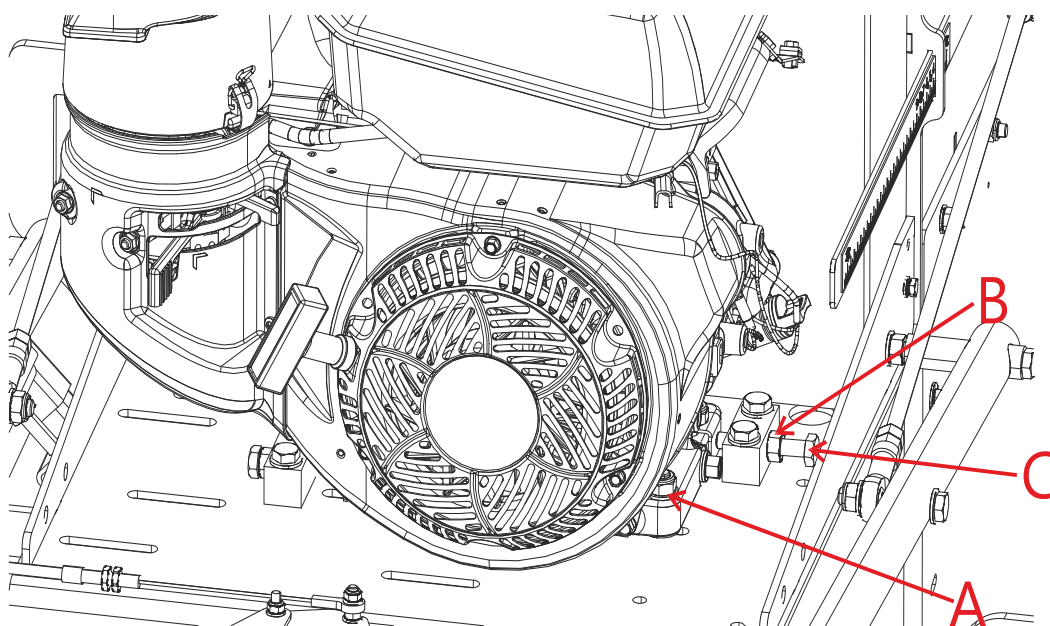


FIG. 5-4

5

Maintenance and Alignment

Belt Tensioner Adjustment and Belt Replacement (Gas Engine)

3. Tension the drive belts using the adjustment bolts. Properly tensioned belts has 6mm deflection with a 5kg deflection force.

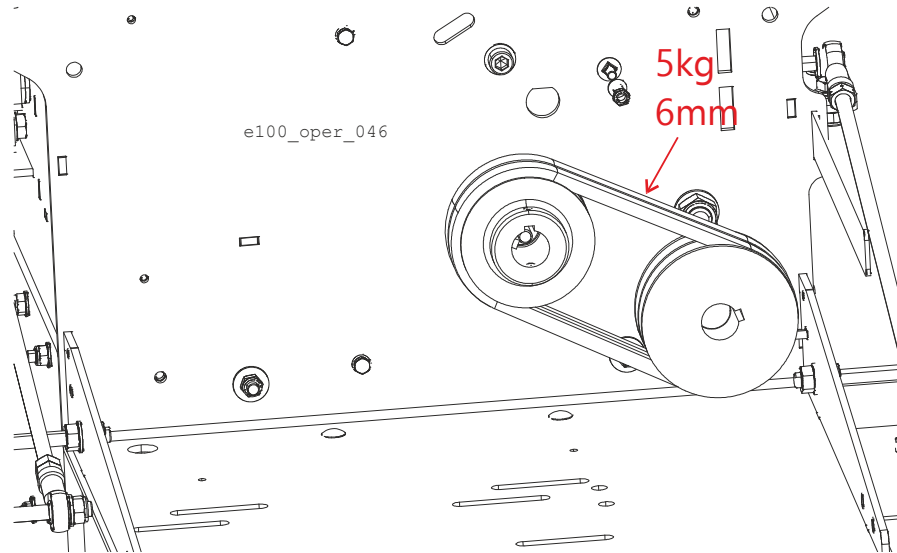


FIG. 5-5

4. To replace the belts with new ones, loosen the engine mounting bolts and move the engine so that it is possible to remove the belts from the pulleys.
5. After the belts are tensioned properly, re-install the engine drive guard.

5.4 Tensioning and Replacing the Electric Motor Drive Belt

1. Dismount the motor drive guard.
See Figure 5-5.

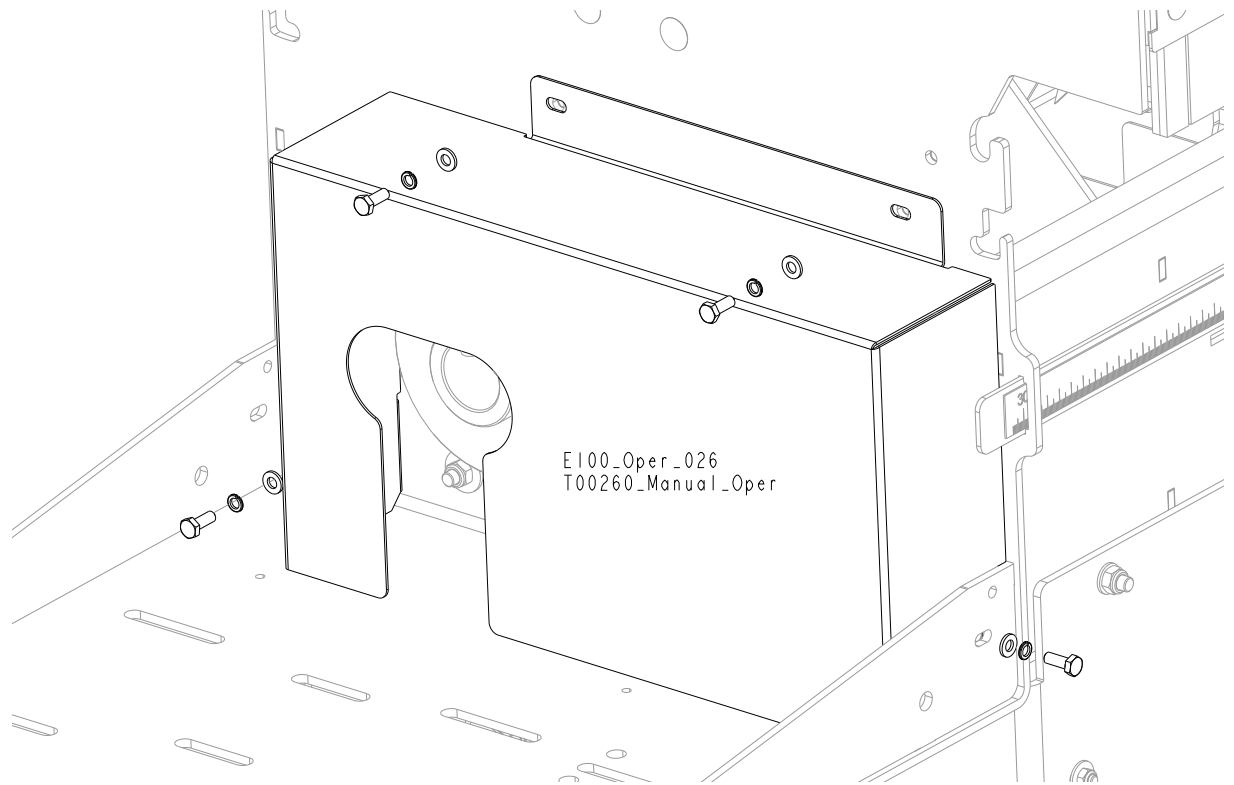


FIG. 5-6

2. Loosen the motor mounting bolts (A).
3. Using the adjustment bolts B, tension the drive belt properly. Be sure to adjust the bolts evenly so the motor remains in alignment.
 - The motor drive belt is tensioned properly if it has 8mm deflection with a 5 kg deflection force.

See Figure 5-6.

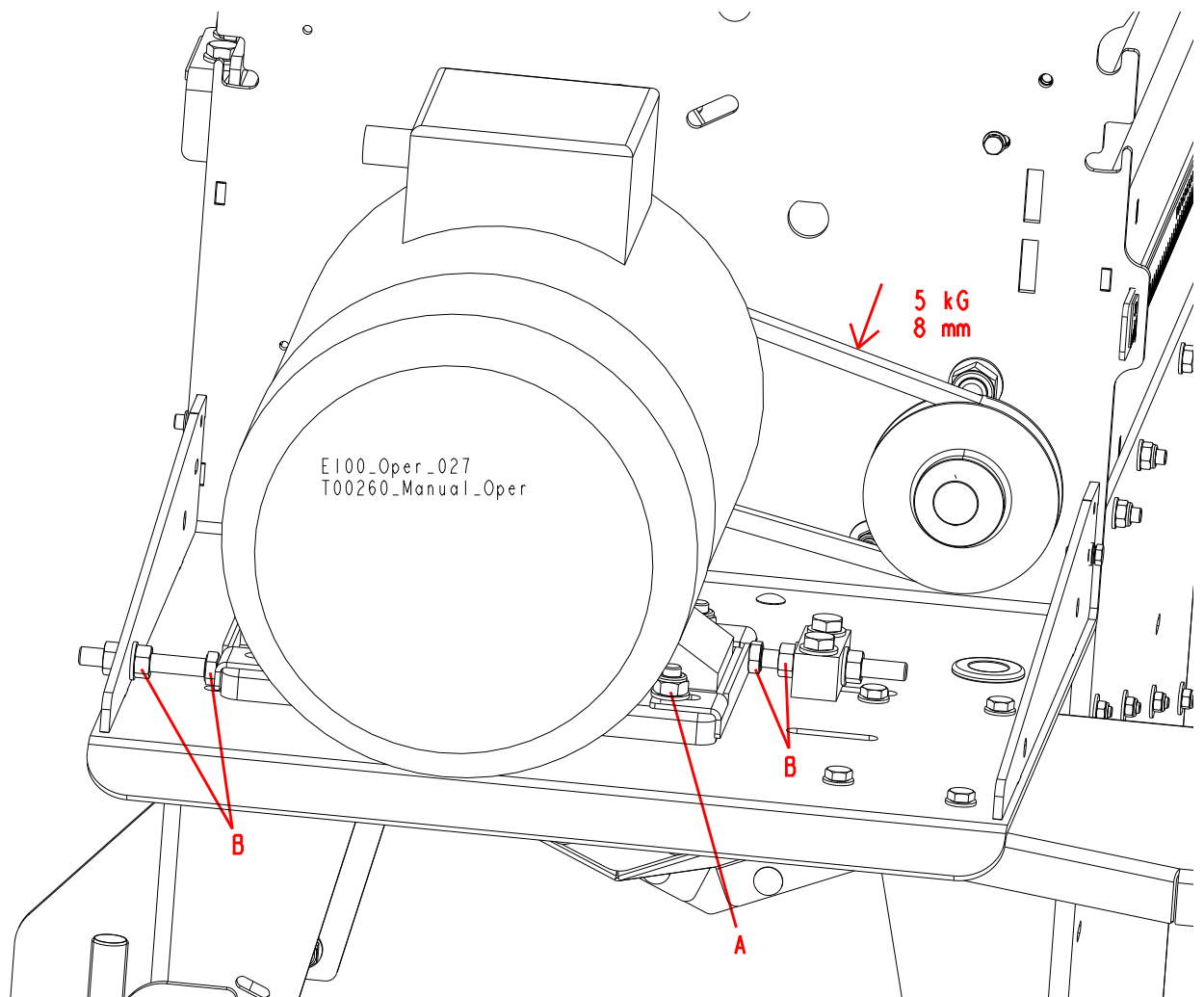


FIG. 5-7

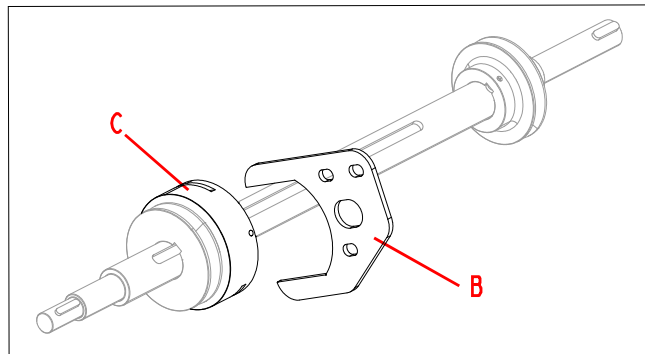
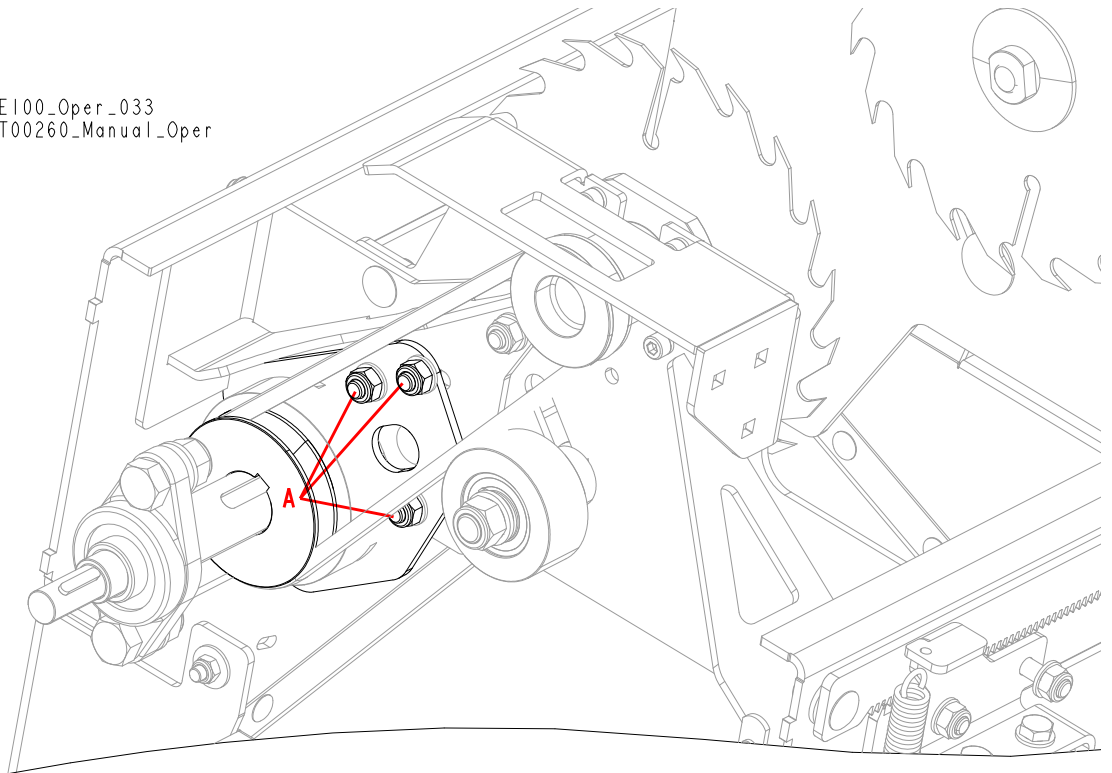
- Tighten the motor mounting bolts.
- Reinstall the guard.

5.5 Replacing the Blade Drive Belts

1. Open the upper blade cover.
2. Loosen and remove the blade drive belts from the pulleys - [See Section 5.2.](#)
3. Disassemble the slide bushing (C) assembly of the movable blade by unbolting the three bolts "A" and removing the slide bushing fork (B).

See Figure 5-7.

E100_Oper_033
T00260_Manual_Oper



E100_Oper_034
T00260_Manual_Oper

FIG. 5-8

4. Dismount the table drive guard assembly - [See Section 3.3.6.](#)

See Figure 5-8.

5

Maintenance and Alignment

Replacing the Blade Drive Belts

- Loosen the chain tension by moving the tensioner (A). Remove the chain from the sprocket (B).

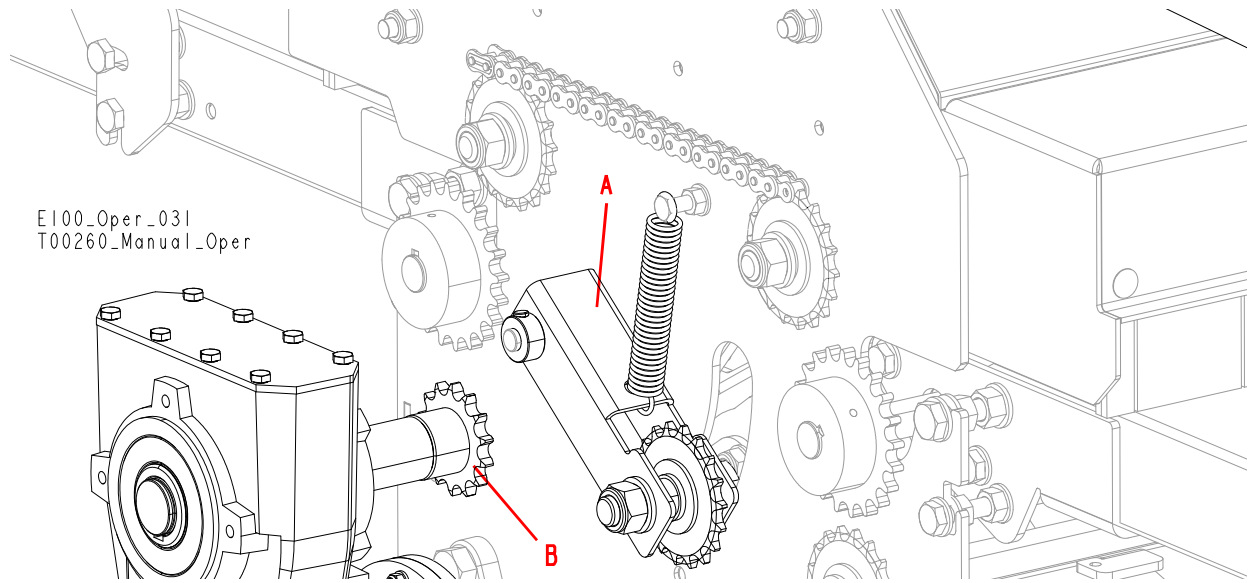


FIG. 5-9

- Unbolt the three reducer mounting bolts (C).
- Remove the reducer (D) from the drive shaft.

See Figure 5-9.

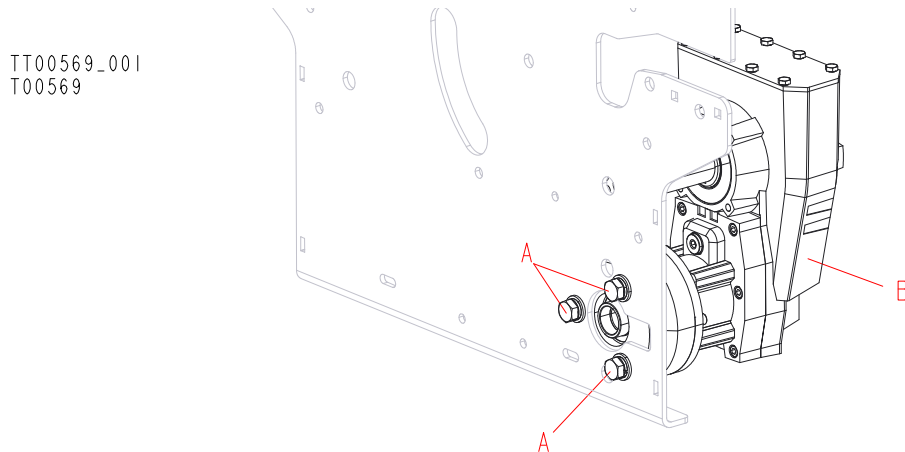


FIG. 5-10

See Figure 5-10.

- Remove the drive belts from the pulleys. Use the cut-out at the shaft to take the belts out.

9. Install new blade drive belts.

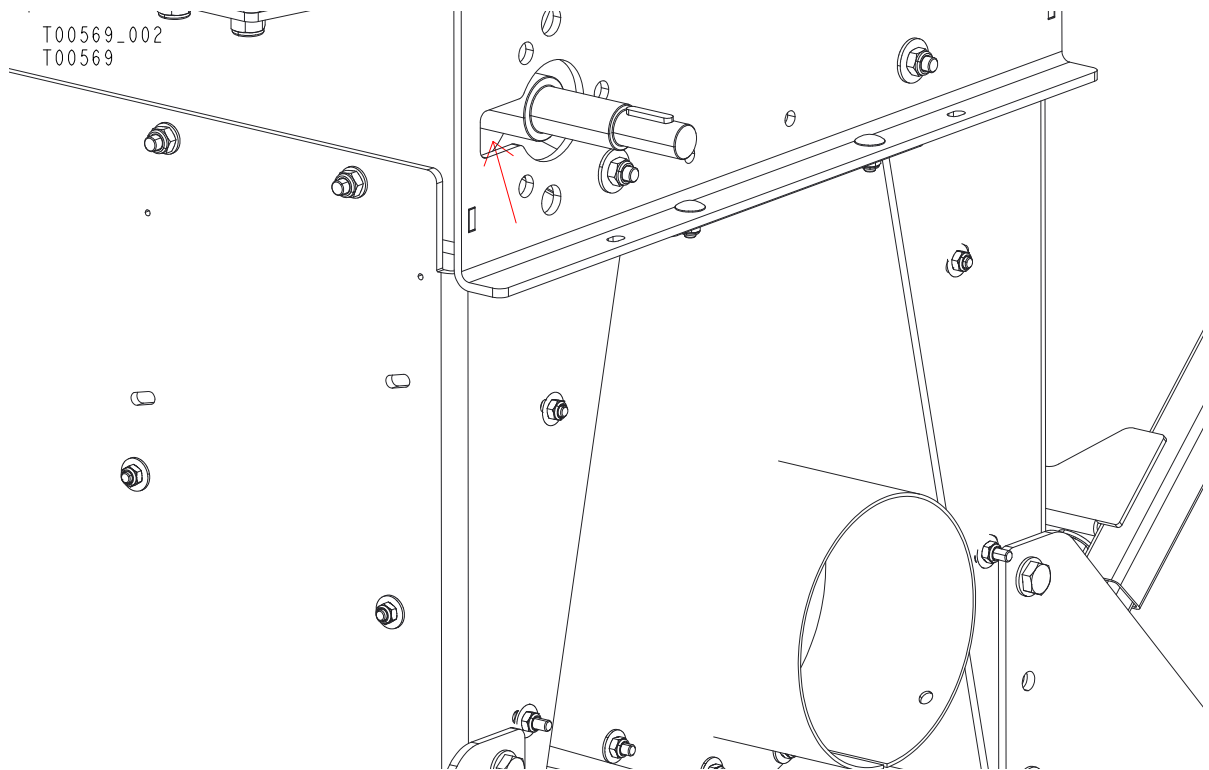


FIG. 5-11

10. Mount all the components dismantled earlier in reverse order (reducer and movable blade bushings, pulleys). Be sure to reinstall the keys (A).

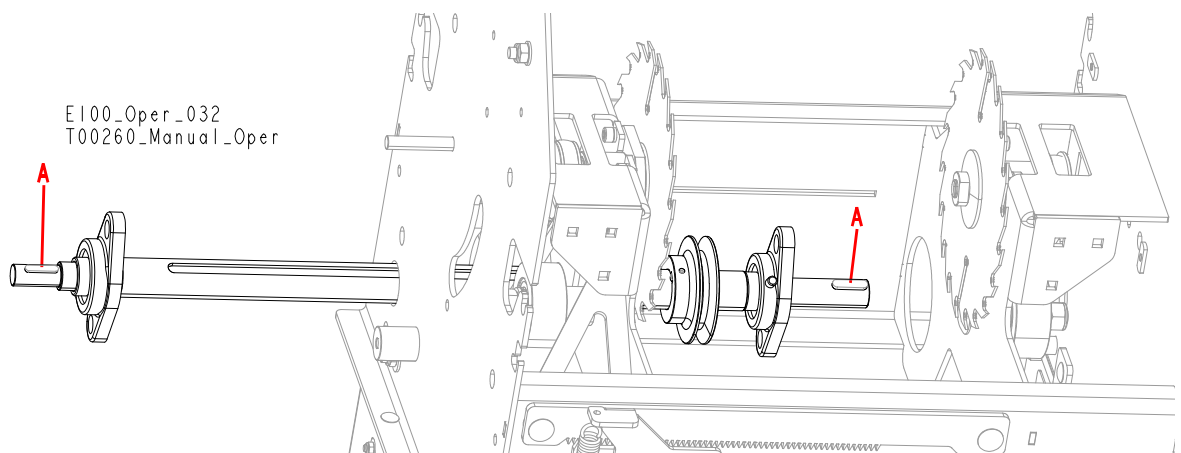







FIG. 5-12

11. Tension the belts properly - [See Section 5.2](#).

5.6 Checking the Rollers and Table Belt

-  1. Check the hold-down rollers every 8 hours of operation. Remove any dirt or debris from the rollers. Make sure they spin freely, without much play.
-  2. Check the table belt every 8 hours of operation. Clean any debris from the belt.

5.7 Lubrication

-  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.
-  2. Lubricate the blade shaft bearings every 200 hours of operation with one to two pumps of lithium-based grease such as Shell Alvania No. 3. Do not overgrease.
-  3. Apply an anti-seize lubricant to the surfaces and threads of the blade mounting elements every blade change ([See Section 5.1](#)).

5.8 Maintaining the Anti-Kickback Fingers

This machine has the potential for kickbacks. Kickbacks can cause the board to be suddenly and uncontrollably hurled towards the operator. Such action can result in severe injury or death.

If you are working with frozen boards or with boards that have protruding knots, the chance of kickbacks is increased.

The E100 edger is equipped with anti-kickback fingers to help prevent kickback from occurring. To maintain the safety of your edger, periodically inspect the machine to ensure all anti-kickback fingers are intact and undamaged and have a sharp point. Missing or damaged parts can affect the safety of the machine operator or bystanders and should be replaced immediately. Do not sharpen the anti-kickback fingers! If they are dulled, replace them with new ones.

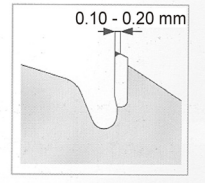


DANGER! Always ensure that there is a sharp point on the anti-kickback fingers before each use of the edger.

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

5.9 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").

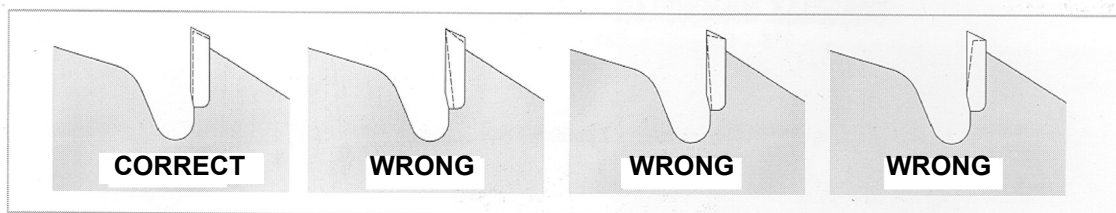


Use diamond grinding wheels for sharpening the blades. Apply intensive cooling during sharpening to prevent overheating and structural changes in the cemented carbide tips.

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.



5.10 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.

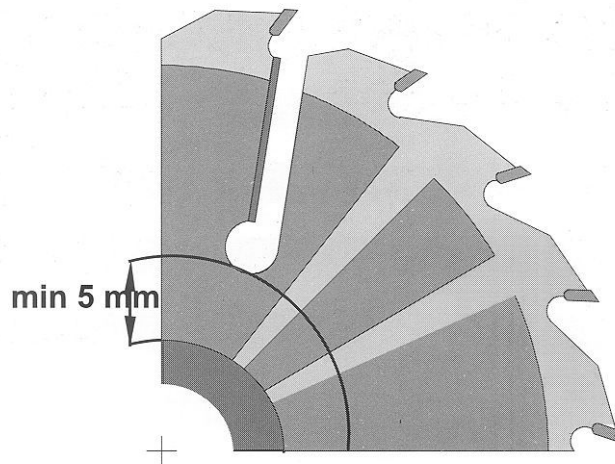
Do not set teeth with cemented carbide tips!

Do not make any modifications to the blade teeth!

Do not operate the machine if any 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 with machines in good operating condition and equipped with suitable safety guards.

5.11 Safety Devices Inspection (Only CE¹ Version)

E100 Edger Safety Devices Inspection

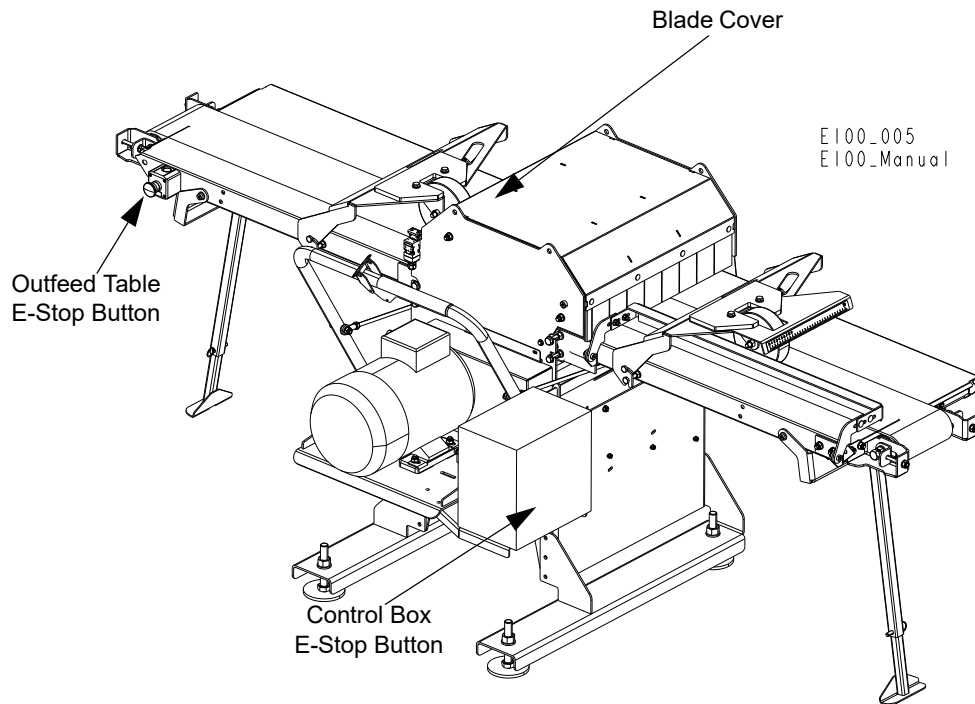


FIG. 5-13

Before beginning a shift, inspect the following safety devices of the E100 edger:

- E-Stop button circuit - control box
- E-Stop button circuit - outfeed table
- Safety switch circuit - cover

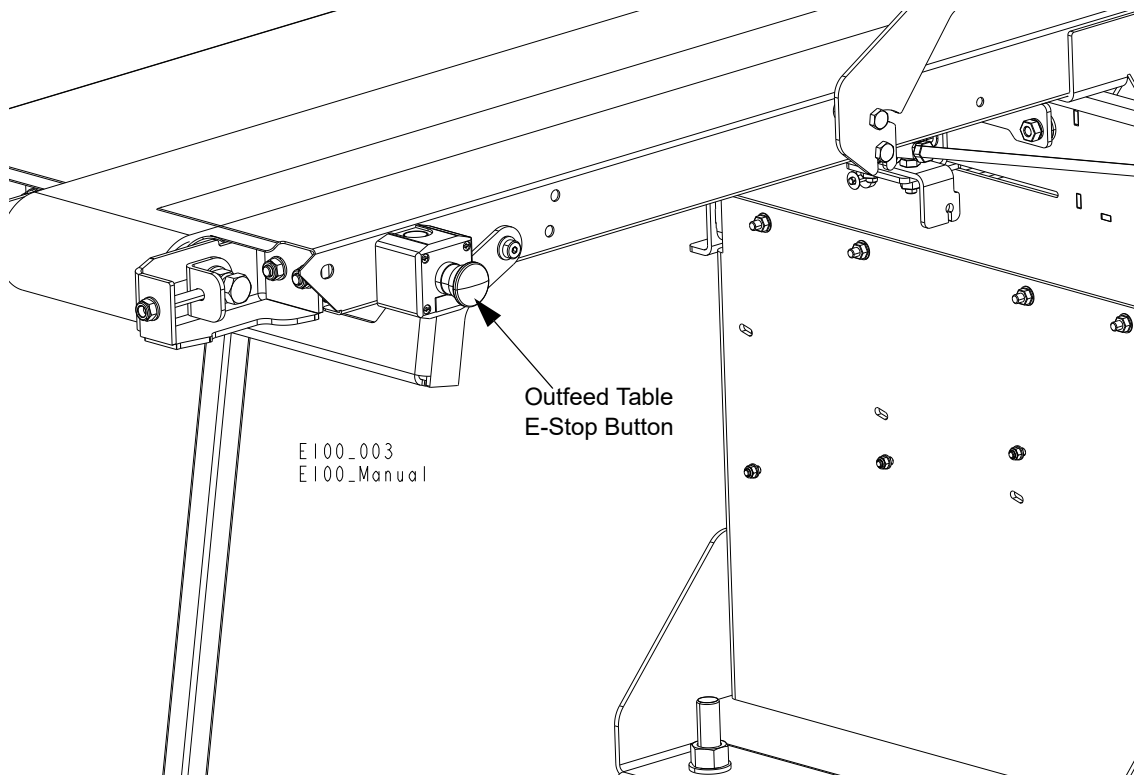
1. Inspecting the E-Stop Button Circuit - Control Box

- Start the main motor/engine.
- Press the emergency stop button located on the control box. The motor/engine should stop. It should not be possible to restart the motor/engine until the E-STOP button is released.

2. Inspecting the E-Stop Button Circuit - Outfeed Table

- Start the main motor/engine.

- Press the emergency stop button located on the outfeed table. The motor/engine should stop. It should not be possible to restart the motor/engine until the E-STOP button is released.

**FIG. 5-14**

3. Inspecting the Safety Switch Circuit - Blade Cover (Gas Edger)

- Start the main engine.
- Open the cover.
- The main engine should stop.
- Try to start the engine. It should not be possible to start the engine.
- Close the cover.

Inspecting the Safety Switch Circuit - Blade Cover (Electric Edger)

- Start the main motor.
- Try to open the cover.
- It should not be possible to open the cover when the motor is running.

SECTION 6 SPECIFICATIONS

6.1 Overall Dimensions

See Figure 6-1 The major dimensions of the E100 edger are shown below (all dimensions are in millimeters).

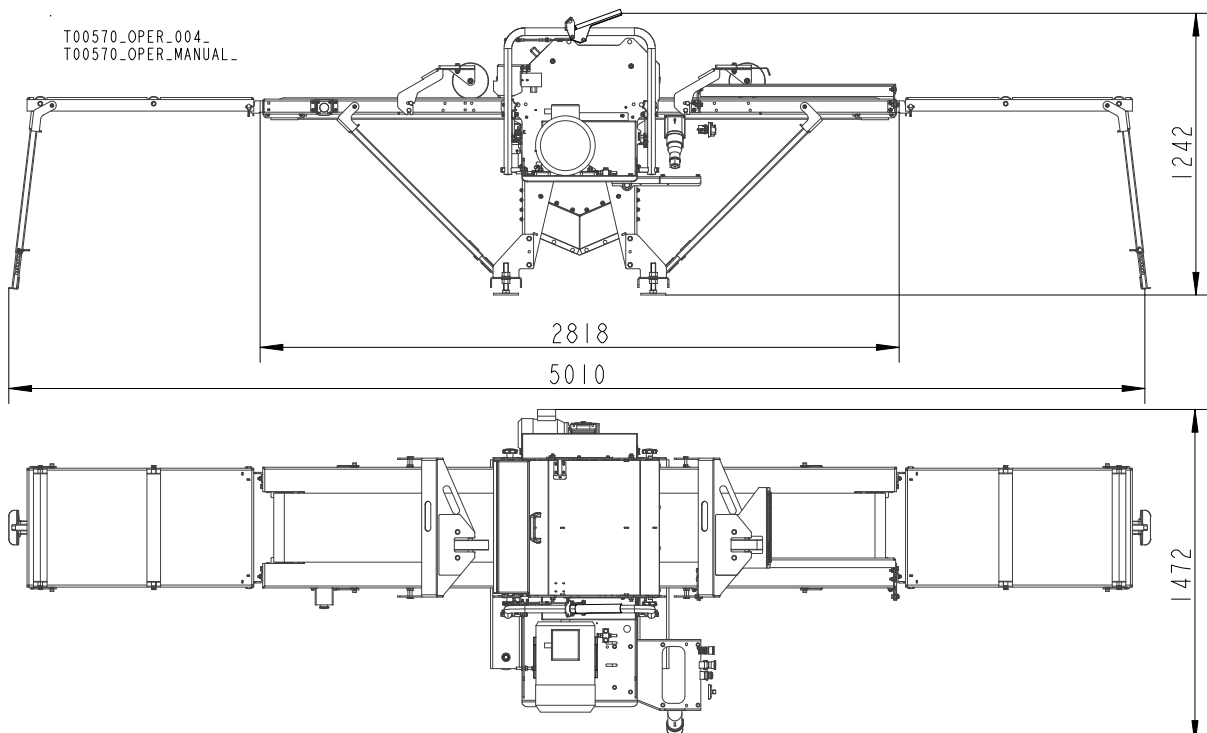


FIG. 6-1

See Table 6-1 The overall dimensions of the E100 edger are listed in the table below.

Weight	370 kg
Height	1242 mm
Width	1472 mm
Length	5010mm

6.2 E100 Edger Specifications

See Table 6-2 See the table below for technical data on the Timbery E100 edger.

	Motor Specifications	Motor Specifications
Motor Type	E7 Electric Motor	E10 Electric Motor
Manufacturer	Siemens, Germany	Siemens, Germany
Voltage	400V, 460V	400V, 460V
Maximum Current	10.5 A	14 A
Maximum Revolutions per Minute	2950 r.p.m. at 50Hz	2925 r.p.m. at 50Hz
Rated Power	5.5kW (7HP) at 50Hz	7.5kW (10HP) at 50Hz
Manufacturer Part No.	1LE1001-1CA03-4AA4	1LE1002-1CA13-4AA4-Z

	Engine Specifications
Engine Type	G14 Gas Engine
Manufacturer	KOHLER, USA
Cubic Capacity	429 cm ³
Number of cylinders	1
Maximum Revolutions per Minute	3600 r.p.m.
Rated Power	10kW (14HP)
Manufacturer Part No.	440-3149

See Table 6-3 The level of noise generated by the E100 edger is given below.^{1 23}

	Engaged
E100 edger equipped w/electric motor	93 dB (A)

See Table 6-4 Other specifications of the E100 edger are given below.

Number of blades	2
Blade diameter	250 mm
Rotational speed	4720 r.p.m.
Cutting speed	9 m/min (29.5 ft/min)
Minimum board length	1100 mm (44")
Minimum board thickness	10 mm (3/8")
Maximum board thickness	50 mm (2")
Minimum cutting width	40 mm (1 3/4")
Maximum cutting width	300 mm (12")
Maximum material width	520 mm (20 1/2")

TABLE 6-4

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.

6.3 Sawdust Exhaust System Specifications

See **Table 6-5** See the table below for specifications of a sawdust exhaust system that can be used with the E100 edger¹.

Airflow	1200 m ³ /h
Inlet diameter	150 mm
Motor power	1.5 kW
Number of sacks	2 pcs
Sack capacity	0.25 m ³
Pressure drop	1.5 kPa (0.22 psi) ¹
Weight	110 kg
Recommended conveying air velocity in the duct	20 m/s

¹ The pressure drop between the inlet of the capture device and the connection to the CADES should not exceed 1.5 kPa (for the nominal air flow rate). If the pressure drop exceeds 1.5 kPa the machine might not be compatible with conventional CADES.

TABLE 6-5



IMPORTANT! The sawdust exhaust system hoses must be grounded or made with materials not accumulating electrostatic charge.



CAUTION! Always connect and turn on the sawdust exhaust system before starting the machine.

1. External chip and dust extraction equipment with fixed installations are dealt with in EN12779:2016-04.

EC declaration of conformity
according to EC Machinery Directive 2006/42/EC, Annex II, 1.A

Manufacturer: Timberly Sp z o.o.; Nagórna 112 108; 62-600 Koło, Poland

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Following machine in our delivered version complies with the appropriate essential safety and health requirements of the EC Machinery Directive 2006/42/EC based on its design and type, as brought into circulation by us. In case of alteration of the machine, not agreed by us, this declaration is no longer valid.

We, the undersigned herewith declare, that:

Designation of the machine: **Twin Blade Edger**

Type: E100 series

No. of manufacturer:

**Is in conformity with the following
EC directives:**

EC Machinery Directive 2006/42/EC
EC Electromagnetic Compatibility Directive
2014/30/EU

**And is in conformity with the following
Harmonized Standards:**

PN-EN ISO 12100:2012
PN-EN 1870-4:2012
PN-EN ISO 14120:2016-03
PN-EN 349+A1:2010
PN-EN ISO 13849-1_2016-02
PN-EN 60204-1:2010
PN-EN ISO 13857:2010

Notified Body according to annex IV : INSTYTUT TECHNOLOGII DREWNA
Centrum Certyfikacji Wyrobów Przemysłu Drzewnego
ul. Winiarska 1, 60-654 Poznań

Notification No: 1583

EC type-examination certificate no.: 0595/2017

Responsible for Technical Documentation: Radosław Adamkiewicz / Product Manager
Timberly Sp. z o.o.
62-600 Koło, Nagórna 112, Poland
Tel. +48 63 26 26 047

Place/Date/Authorized Signature: Koło, 22.12.2017 *Radosław Adamkiewicz*

Title: Product Manager