Wood-Mizer®

from forest to final form

user manual

Instrukcja obsługi | Руководство полъзователя
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

www.wood-mizer.eu

Wood-Mizer®

Sawmill

Safety, Setup, Operation & Maintenance Manual

LT20 Series DH **rev. D8.00**

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

April 2003

This is the original language for the manual.

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Form #629

Table of Contents Section-Page

This manual is to replace or to be used with all previous information received on the Wood-Mizer®* sawmill. All future mailings will be an addition to or a revision of individual sections of this manual as we obtain new information.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

If You Need To Order Parts...

From Europe call our European Headquarters and Manufacturing Facility in Kolo, 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 Select Purchase
- 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.

If You Need Service...

From Europe call our European Headquarters and Manufacturing Facility in Kolo, Poland at ***+48-63-2626000.*** Ask to speak with a Customer Service Representative. Please have your vehicle identification number and your customer number ready when you call. The Service Representative can help you with questions about alignment of your mill, blade sharpening, or cutting a particular species of wood. He also can schedule you for a service call.

Office Hours: All times are Eastern Standard Time. Please remember that Indiana does not go on Daylight Savings Time in the summer.

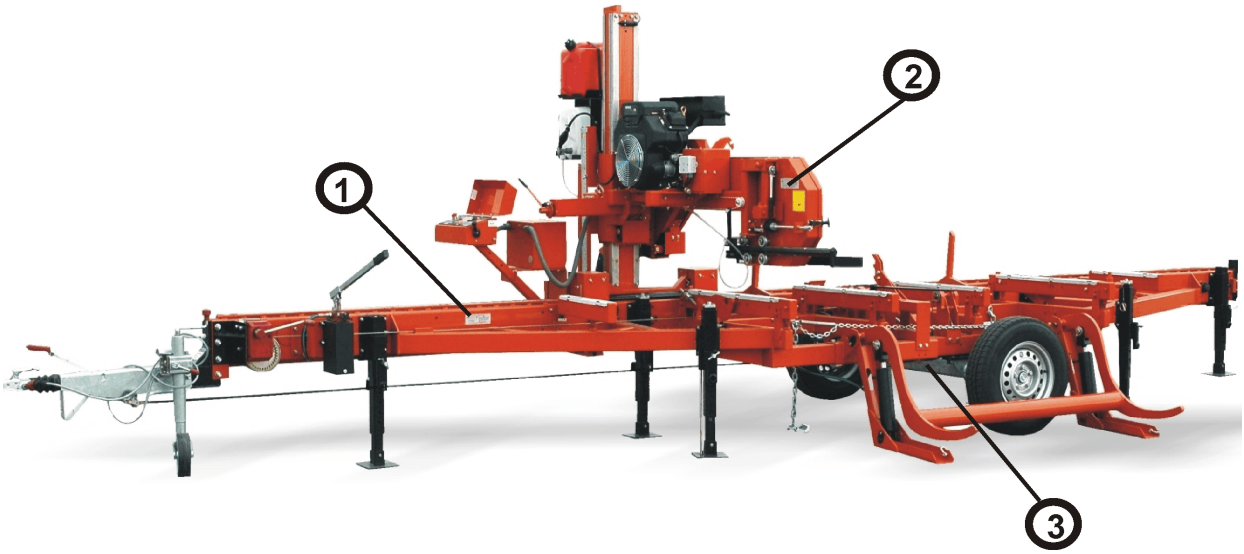
Country	Monday - Friday	Saturday	Sunday
U.S., Indiana	8 a.m. to 5 p.m.	8 a.m. to 4 p.m.	Closed
Poland	7 a.m. to 3:00 p.m.	Closed	Closed

IMPORTANT! Read the entire Operator's Manual before operating the sawmill. 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.

*Wood-Mizer® is a registered trademark of Wood-Mizer Products, Inc.

Sawmill and Customer Identification

Each Wood-Mizer sawmill has a 17-digit Vehicle Identification Number (VIN). See the figure below for VIN locations. See the chart for VIN description.

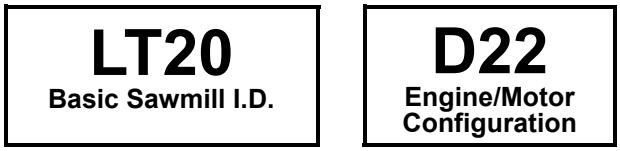


V.I.N. LOCATIONS.

Company Identification Number 456=Wood-Mizer Indiana	Weight Class; A=Under 1361 kg, B=1361-1814 kg, C=1814-2268 kg, D=2269-3000kg	Product No.; 1=LT10/15, 2=LT20 Series, 4=LT40 Series, 7=LT70 Series	Length of the Trailer; 20= 20' (6 m), 24=24' (7 m), 35=35' (11 m)	Number of axles on the trailer	Check Digit Add all the number and divide by 11	Year of Manufacture; G=2009, H=2010, J=2011, K=2012, L=2013, M=2014	State of Manufacture N=Indiana, P=Poland	Month of Manufacture A=January, B=February, C=March, etc...	Revision Level	Sequence Number Ranging from 000-999	End of 17-Digit VIN	Revision Level (Repeated)	Two-Digit Minor Revision Level
456	**A**	**4**	**24**	**1**	**X**	**H**	**P**	**A**	**F9**	**017**		**F9**	**.01**

V.I.N. DESCRIPTION

Each sawmill is also identified with a model number which includes the base model and the engine/motor configuration. See the figure for a description of the model number.



MODEL NUMBER DESCRIPTION.

When you pick up your mill, you will receive a customer number. Both the VIN and your customer number expedite our service to you. Please write these numbers below so you have quick, easy access to them.

Customer No.	Model No.	V.I.N.	Revision

Getting Service

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.

General Contact Information

From Europe call your local distributor or our European Headquarters and Manufacturing Facility in Kolo, Nagórna 114 St, Poland at **+48-63-2626000**. From the continental U.S., call our U.S. Headquarter 8180 West 10th St.Indianapolis, IN 46214, toll-free at ***1-800-525-8100.*** Ask to speak with a Customer Service Representative. Please have your machine 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 machine. He also can schedule you for a service call.

Office Hours:

Country	Monday - Friday	Saturday	Sunday
Poland	7 a.m.- 3 p.m.	Closed	Closed
US	8 a.m.- 5 p.m.	8 a.m.- 12 p.m	Closed

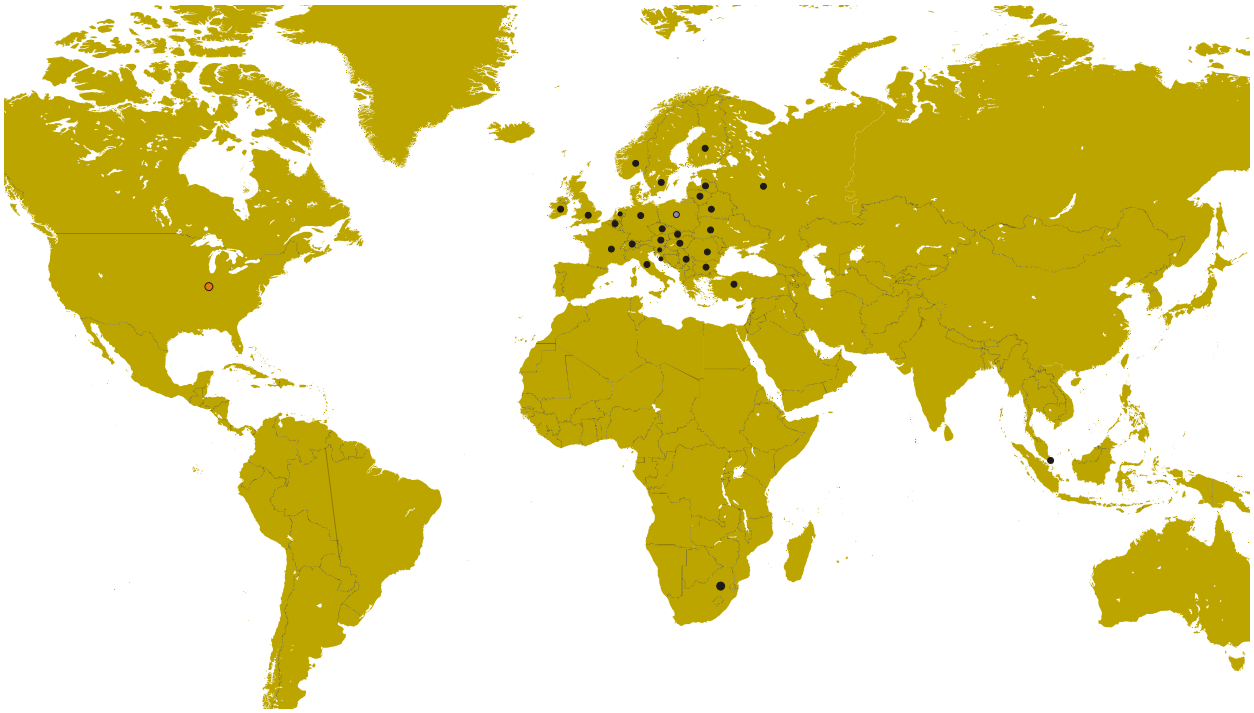
Please have your vehicle identification number and your customer number ready when you call.

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.

Branches & Authorized Sales Centers



EUROPE		UNITED STATES
European Headquarters **Wood-Mizer Industries Sp. z o.o.** Nagórna 114, 62-600 Koło, Poland Tel.: +48-63-26-26-000 Fax: +48-63-27-22-327 www.woodmizer.eu		**World Headquarters** **Wood-Mizer LLC** 8180 West 10th Street Indianapolis,Indiana 46214-2400, USA Tel.: +1-317-271-1542 Fax: +1-317-273-1011 www.woodmizer.com
BELARUS **MOST-GRUPP** Siemashko 15, k.3 Minsk 2200116 Tel.: +375-17-270-90-08 Fax: +375-17-270-90-08 GSM: +375-29-649-90-80 e-mail: most-by@mail.ru	**SWITZERLAND Bruno Steiner** Striegelgasse 2 CH-6214 Schenkon Tel.: +41-41-921-13-01 Fax: +41-41-922-18-87 e-mail: info@mobilsaegen.ch	**RUSSIA Dariusz Mikołajewski** **OOO WOOD-MIZER INDUSTRIES** 141031, Moscow Reg., Mytishenski raj., pos. Veshki, Zavodskaja str., 3B Tel.Fax: +7(495) 788-72-35 Tel.Fax: +7(495) 641-51-60 e-mail: dariuszm@woodmizer-moscow.ru

BULGARIA Kalin Simeonov **Ecotechproduct** 38 Star Lozenski pat str. Sofia 1186 Tel.: +359-2-462-7035 Tel.: +359-2-963-1656 Tel:/Fax : +359-2-979-1710 **Kalin Simeonov** GSM: +3592-963-2559 e-mail: office@ecotechproduct.com	**HUNGARY Wiktor Turoczy** **Wood-Mizer Hungary K.F.T.** Szonyi Ut 67., 2921 Komárom Tel.:/Fax: +36-34-346-255 e-mail: woodmizer@woodmizer.hu	**RUSSIA Far East Wladimir Głazaczew** **"WM Service"** Krasnoretchenskaya Str.111 680006 Khabarovsk Tel.:/Fax: +7-914-541-1183 e-mail: wms-khv@mail.ru
CROATIA Krešimir Pregernik **Pregimex d.o.o.** S. Batušiæa 31, 10090 Zagreb Tel.:/Fax: +3851-38-94-668 **Krešimir Pregernik** GSM: +3851-98-207-106 e-mail: Kresimir.Pregernik@gmail.com	**ITALY Felice Pasquale** **Wood-Mizer Italia Srl** **Cda. Capoiaccio SN** 86012 Cercemaggiore Campobasso Tel.:/Fax: +39-0874-798-357 GSM: +39-333-281-03-79 e-mail: wmitaliasrl@gmail.com	**SERBIA Dragan Markov** **Wood-Mizer Balkan d.o.o.** Svetosavska GA 3/3; P. Fah 25 23 300 Kikinda Tel.:/Fax: +381-230-25-754 Tel.:/Fax: +381-230-23-567 GSM: +381-63-568-658 e-mail: office@woodmizer.co.yu
CZECH REPUBLIC Miroslaw Greill **Wood-Mizer CZ s.r.o.** Osvaldova 91 339 01 Klatovy-Luby Tel.:/Fax: +420-376-312-220 Fax: +420-376-319-011 **Miroslaw Greill** GSM: +420-723-580-799 e-mail: greill@woodmizer.cz	**Subagent:** **ITALY Franz Josef Reichsigl** Muls 21, 39058 Sarnthein Tel.:/Fax: +39-471-627-264 GSM: +39-335-824-88-05	**SLOVAKIA Wiktor Turoczy** **Wood-Mizer Danubia s.r.o.** Hadovce 5, 94501 Komárno Tel.: +421-35-77-40-316 Fax: +421-35-7740-326 GSM: +421-905-930-972 e-mail: woodmizer@woodmizer.sk
CZECH REPUBLIC Lubomir Kudlik **Wood-Mizer Moravia** Sovadinova 6 69002 Breclav Tel.:/Fax: +420-519-322-443 **Lubomir Kudlik** GSM: +420-602-734-792 e-mail: info@wood-mizer.net	**LATVIA Vilmars Jansons** **OBERTS Ltd** Gaujas str. 32/2 LV-2167 Marupe, Rigas Raj. Tel.: +371-7-810-666 Fax: +371-7-810-655 **Vilmars Jansons** GSM: +371-92-06-966 **Andris Orols** GSM: +371-28-33-07-90 e-mail: andris@oberts.lv	**TURKEY** **Er-Ka Ahsap Profil Kerestecilik San. ve Tic. Ltd. Sti.** Adana Keresteciler Sitesi 191 sk No.41 ADANA Tel.: +90-322-346-15-86 Fax: +90-322-345-17-07 GSM: +90-533-363-18-44 e-mail: info@erkaahsap.com.tr
FINLAND Howard Blackbourn **Oy Falkberg Jordbruk Ab** Falkintie 220 25610 Ylonkyla Tel.: +358-2732-2253 Fax: +358-2732-2263 **Howard Blackbourn** GSM: +358-440-424-339 e-mail: falkberg@woodmizer.fi	**LITHUANIA Andrius Zuzevicius** **UAB Singlis** Savanoriu pr. 187, 2053 Vilnius Tel.: +370-5-2-32-22-44 Fax: +370-5-2-64-84-15 GSM: +370-620-28-645 e-mail: andrius.z@singlis.lt **Dmitrij Gaiduk** GSM: +370-69-84-51-91 e-mail: dmitrijus.g@singlis.lt	**UKRAINE Ivan Vinnicki** **MOST UKRAINA** bul. Myru 3, Bajkivtsi Ternoplskyj r-j Ternopolska oblast 47711 Ukraine Tel/Fax: +38 (0352) 52 37 74 GSM: +38 (067) 352 54 34 GSM: +38 (067) 674 50 68 E-mail: most-ukraina@ukr.net

FRANCE Laurence Serrurier
Wood-Mizer France
Zac du Prè Marechal Route de Fruges
62560 Fauquembergues
Tel: +33-321-930-544
Fax: +33-321-930-990
GSM: +33-607-025-282
Mail: lserrurier@woodmizer.fr

SLOVENIA Jan Fale
FAMTEH d.o.o.
Gacnikova pot 2,
2390 Ravne na Koroskem
Tel.: +386-2-62-04-232
Fax: +386-2-62-04-231
Jan Fale
GSM: +386-2-62-04-230
e-mail: jan.fale@famteh.si

Matjaz Kolar
Tel.: +386-2-62-04-232
GSM: +386-31-775-999
e-mail: matjaz.kolar@famteh.si

NORWAY Odd Edvoll
Wood-Mizer Nordic AS
Vardelia 17, 2020 Skedsmokorset
Tel.: +47-63-87-49-89
Fax: +47-63-87-37-66
GSM: +47-930-42-335
e-mail: odd.edvoll@woodmizer.no

e-mail: firmapost@woodmizer.no

UNITED KINGDOM & IRELAND
Wood-Mizer UK
Hopfield Barn
Kenward Road, Yalding
Kent ME18 6JP, UK
Tel.: +44-1622-813-201
Fax: +44-1622-815-534
e-mail: info@woodmizer.co.uk

David Darnell
10 Tennyson Avenue
Southend on Sea
Essex, SS2 5HD
David Darnell GSM: +44 7799 063 497

Stephan Cull
Cembrandy Gardens, Manorwen
Fishguard, Pembrokeshire SA659PT
Tel.: +44-1348-873-179
GSM: +44-7887-544-333

GERMANY Klaus Longmuss
Wood-Mizer Sägewerke GmbH
Dorfstraße 5, 29485 Schletau
Tel.: +49-5883-9880-10
Fax: +49-5883-9880-20
e-mail: info@woodmizer.de

Klaus Longmuss
Tel.: +49-5883-9880-12
GSM: +49-17-298-55-892
e-mail: KLongmuss@woodmizer.de

Subagent:
SWEDEN Kjell Larsson
Mekwood AB
Slingan 14, 812 41 Gästrike-Hammarby
Tel.: +46-290-515-65
Kjell Larsson
GSM: +46-706-797-965
e-mail: kjell.larsson@mekwood.se

IRELAND
Wood-Mizer Ireland
Stephen Brennan
Cum Lahardane Ballina County Mayo
Tel:+353 96 51345

E-mail: brennanmill@ericom.net

Subagents:
DENMARK Brian Jensen
Arnborgvej 9, 7330 Brande- Fasterholt
Tel.: +45-971-88-265
Fax: +45-971-88-266
Brian Jensen
GSM: +45-23-49-5828
e-mail: Fasterholt-Savvaerk@Mail.Tele.dk

ROMANIA Adrian Echert
SC WOOD-MIZER RO SRL
TRANSILVANIEI Nr. 5
Sibiu, Cisnadie 555300
Tel.:/Fax: : +40-369-405-433
GSM: +40-745-707-323
e-mail: aechert@woodmizer.ro

Regional Manager - Asia
Wood-Mizer Asia Pte Ltd.
James Wong
Tel: +65 81216910
Fax: +65 6283 8636
WWW: www.woodmizerasia.com
E-mail: jwong@woodmizerasia.com

Netherlands Chris Dragt
Lange Brink 77d,
7317 BD Apeldoorn
Tel.: +31-55312-1833
Fax: +31-55312-2042
e-mail: Info@dragtbosbouw.nl

Subagent:
ROMANIA M. Echert
S.C. Echert Comprod s.r.l
Str. Schitului Nr. 6, Apt.7 etajul-1
725 70 Vatra Dornei, Romania
Tel.:/Fax: +40-230-374-235
Tel. : +40-740-35-35-74

Regional Manager - Africa
Wood-Mizer Africa
Jean-Jacques Oelofse
UNIT 3, LEADER PARK, NO: 20 CHARIOT ROAD
STORMILL, EXT 5, Roodepoort, Johannesburg
Tel: +27 011 473 1313
Fax: +27 011 473 2005
Jean-Jacques Oelofse E-mail: jjoelofse@woodmizerafrica.com
Jean-Jacques Oelofse
Skype:jean.jacques.pierre.oelofse

SECTION 1 SAFETY & GENERAL INFORMATION

This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** 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. Read all safety instructions before operating this equipment and observe all safety warnings!

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.

Read and observe all safety instructions before operating this equipment! Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Always be sure that all safety decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact your local distributor, or call your Customer Service Representative to order more decals.

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

Always properly dispose of all sawing by-products, including sawdust and other debris, coolant, oil, fuel, oil filters and fuel filters.

Safety instructions are listed in this section by the following operations:

- Blade Handling
- Sawmill Setup
- Sawmill Operation
- Sawmill Maintenance

1.1 Blade Handling

DANGER! Always disengage the blade and shut off the sawmill engine before changing the blade. Failure to do so will result in serious injury.

WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying or changing a blade. Failure to do so may result in serious injury.

WARNING! Do not spin the blade wheels by hand. Spinning the blade wheels by hand may result in serious injury.

1.2 Sawmill Setup

WARNING! Chock the trailer wheels to prevent movement before unhitching it from the towing vehicle. Failure to do so may result in serious injury or death.

WARNING! Failure to put front outrigger down before moving cutting head from the rest position may result in serious injury.

WARNING! Securely fasten the feet of a stationary sawmill to the floor before operating the sawmill. Failure to do so may result in serious injury or death.

WARNING! Always make sure the trailer is supporting the sawmill frame when operating a sawmill with adjustable outriggers. Failure to do so may result in serious injury or death. The adjustable outriggers are intended to support the saw frame with assistance from the trailer.

WARNING! Do not set up the mill on ground with more than a 10 degree incline. If setup on an incline is necessary, put blocks under one side of the mill or dig out areas for outrigger legs to keep mill level. Setting up the mill on an incline could cause it to tip over, resulting in serious personal injury.

CAUTION! Changes in temperature could cause increased pressure in the blade tensioner and loss of fluid from the gauge. Release the blade tension when the mill is not in use to avoid damage to the tensioner.

1.3 Sawmill Operation

IMPORTANT! The sawmill is intended for sawing wood only. *See Section 1.7* for log size capacities of the machine.

IMPORTANT! The operator of the sawmill should get adequate training in the operation and adjustment of the machine.

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

Be sure the blade housing and pulley covers are in place and secure. Use the safety retainer pin and cable to fasten blade housing covers.

DANGER! Always keep hands away from moving bandsaw blade. Failure to do so will result in serious injury.

DANGER! Stay clear of the area between the trailer axle and saw

carriage. Failure to do so will result in serious injury.

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

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

DANGER! Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine or motor. Failure to do so will result in serious injury.

DANGER! Keep all persons out of the path of returning boards. Failure to do so will result in serious injury.

WARNING! Always disengage the clutch/brake mechanism whenever the sawmill is not cutting. Failure to do so may result in serious injury.

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

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

WARNING! Always make sure log is clamped securely before sawing. Failure to do so may result in serious injury or death.

WARNING! Use ONLY water with the water lube accessory. Never use flammable fuels or liquids. If these types of liquids are necessary to clean the blade, remove it and clean with a rag. Failure to do so may result in serious injury or death.

CAUTION! Be sure the pivot rails, turning arm, clamp, and toe boards are below bed level before loading a log onto the bed. Failure to do so may result in machine damage or cause misalignment.

CAUTION! Before loading a log, be sure the cutting head is moved far enough forward so the log does not hit it. Failure to do so may result in machine damage.

CAUTION! Do not try to force the saw head beyond its upper and lower travel limits. Damage to the up/down system may result.

CAUTION! Do not use the blade guide arm knob to move the carriage head forward and backward. Damage to the blade guide arm may result.

CAUTION! Be sure to stop the blade when returning the carriage.

This will not only prevent the blade from being pulled off and ruined by a wood sliver, but also will increase the life of the blade.

CAUTION! The saw head will hit the spring-loaded ramp stops when adjusted for low cuts. Remove the loading ramps before sawing to prevent damage to the saw head and/or blade guide arm.

CAUTION! Never clean the blade or the blade wheels with a brush or a scraper during sawmill operation.

CAUTION! Before installation of the blade, inspect it for damage and cracks. Use only properly sharpened blades. Always handle the blade with extreme caution. Use suitable carrier equipment for transporting the blades.

CAUTION! Always wear gloves when handling the blade. Never grab the blade with bare hands!

CAUTION! If the blade breaks during sawmill operation, push the EMERGENCY STOP button to stop the blade motor and wait 10 seconds before you open the blade housing cover.

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

1.4 Sawmill Maintenance

WARNING! Always secure the cutting head with a chain or a brace before adjusting the up/down chain. The cutting head may fall, causing severe injury or death.

WARNING! Always secure the cutting head with a chain or a brace before adjusting the mast pads. The cutting head may fall, causing severe injury or death.

CAUTION! Reinstall the track wiper so that it lightly touches the track rail. If the wiper presses too firmly against the rail, it can cause the power feed to bind.

CAUTION! Never use grease on the mast rails as it will collect sawdust.

CAUTION! Do not use chain lube. It causes sawdust buildup in chain links.

CAUTION! Due to variations in the vertical mast, the pad spacing may vary throughout the travel of the saw head. Check the pad spacing at the top and bottom ends of the mast only. Pads adjusted too tight will cause premature up/down motor failure.

CAUTION! It is important that the lower stop bolts are properly adjusted to secure the carriage on the track rail. Failure to properly adjust the stop bolts can cause saw head damage, especially during mill transportation.

See Table 1-1. Pictogram decals used to warn and inform the user about danger in the LT20.

TABLE 1-1

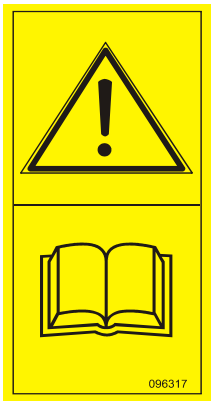
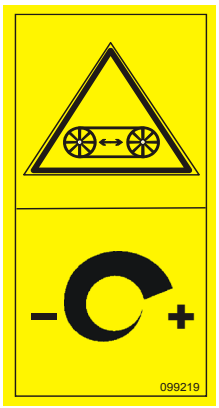
Decal View	W-M No.	Description
	096317	CAUTION! Read thoroughly the manual before operating the machine. Observe all safety instructions and rules when operating the sawmill.
	099220	CAUTION! Close all guards and covers before starting the machine.
	099219	Blade tension. Turning the bolt clockwise will increase the blade tension and turning the bolt counterclockwise will decrease the tension.

TABLE 1-1

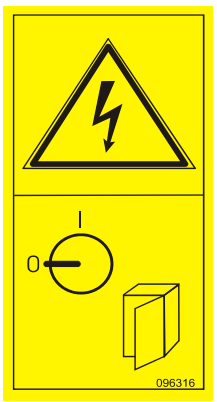
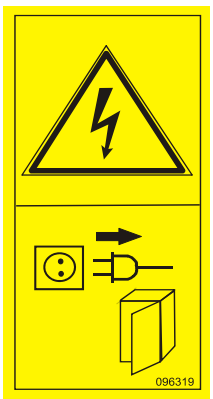
	099221	CAUTION! Keep all persons a safe distance away from work area when operating the machine.
	098176	CAUTION! Keep away from debarker blade!
	096316	CAUTION! Do not open or close the electric box when the switch **is not** in the “0” position.
	096319	CAUTION! Disconnect power supply before opening the box.

TABLE 1-1

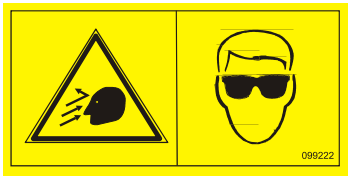
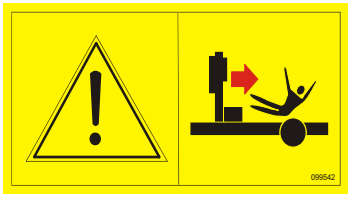
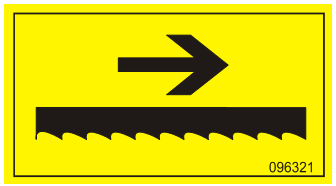
	099222	CAUTION! Sawdust outlet. Protect eyes!
	099542	CAUTION! Trailer
	086099	CAUTION! Hot elements, keep your distance!
	096321	Blade movement direction
	S12004G	CAUTION! Always wear safety goggles when operating the sawmill!

TABLE 1-1

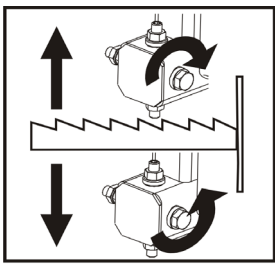
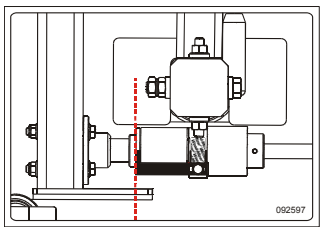
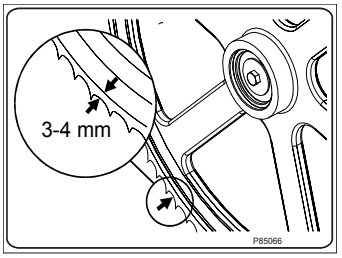
	S12005G	CAUTION! Always wear protective ear muffs when operating the sawmill!
	501465	Caution! Wear foot protection when operating the machine!
	501467	Lubrication point
	P11789	Aligning the blade on the wheels
	092597	Setting the blade tension indicator
	P85070	CE safety certification

TABLE 1-1

	099401	Russian safety certification
	S20097F	2925 RPM - Motor rotation direction
	P85066	Blade positioning

1.5 Belt Sizes

See Table 1-2. Belt sizes for the LT20 Series sawmill are shown.

Description	Belt Size	Wood-Mizer Part #
Motor Drive Belt E11 & E15	2BX81	014819-2
Engine Drive Belt D22, G25	2BX84	088110
Blade Pulley Belts	B57 [1]	P04185

TABLE 1-2

[1] To insure proper blade tracking, use Goodyear, Dayco Super II, or Browning belts only.

1.6 Blade Sizes

See Table 1-3. Wood-Mizer TRU•SHARP™ offers three types of blades to provide efficient sawing for all models of sawmills. The engine/motor size of your sawmill and the type of wood you saw

should determine which blade you choose for optimum performance.

Engine/Motor Size	Recommended Blade Type		
	Softwood	Medium Hardwood	Frozen Timber or Dense Hardwood
5 HP - 15 HP	B275IH1030 B275IH741030	B375IH929	B375IH929[1]
16 HP or more	B376IH1030 B376IH741030	B275IH1030 B275IH741030 B376IH1030 B376IH741030[2]	B375IH929 [1]
Electric Motor	B376IH1030 B376IH741030	B275IH1030 B275IH741030 B376IH1030 B376IH741030 [2]	B375IH929 [1]

[1] TRU•SHARP™"F" 9° blades use a 9/29 profile (9° hook angle and 29° back angle) and are designed to cut frozen and/or extremely dense, hard-to-cut wood. Standard TRU•SHARP™ blades use a 10/30 profile.
[2] Customer may choose preferred blade.

See *The Blade Handbook* for blade hook angle, tooth height, and tooth set specifications.

1.7 Log Dimensions

See Table 1-4. The log size capacities of the LT20 series sawmill are listed below.

	Max. Diameter [1]	Max. Length [1]
LT20 S	71 cm	5.1 m (16' 8")
LT20 M	71 cm	6.4 m (21')
LT20 L	71 cm	8,4m

TABLE 1-4

[1] Maximum log capacity for a basic mill is 2000 Kg.

1.8 Cutting Capacity

See Table 1-5. The performance capacity of the LT20 series sawmill is listed below. Peak cutting rates are measured in 12" (30 cm) wide red oak and represent the capability of the sawmill only. Rates based on using Tru-Sharp 1 1/4" x .042 blades.

Model	Linear Blade Speed	Maximum Cutting Speed
LT20 S/M G15	---	5.2 m/min

TABLE 1-5

1.9 Engine/Motor Specifications

See Table 1-6. The power options available for the LT20 Series sawmill are listed below.

Engine/Motor Type	Manufacturer	Model No.	Power	Other Specifications
11HP Electric	Tamel SA, Poland	Sg 132S-2B HM	7.5 kW	14.5 A, 2925 r.p.m.
15HP Electric	Tamel SA, Poland	Sg 132S-2PC HM	11 kW	22.3 A 2920 r.p.m.
22HP Diesel	Kubota	D1005	22 HP	3600 r.p.m.
18HP Gasoline	Kohler	CH18	18HP	3750 r.p.m.
25HP Gasoline	Kohler	CH25	25HP	3600 r.p.m., 725 cm^3

TABLE 1-6

See Table 1-7. See the table below for power supply specifications for the LT20 sawmill.

	3-Phase Volts	Fused Disconnect Switch	Recommended Wire Size
Non-Hydraulic	**400 VAC**	25 Amp	4 mm^2 up to 15 m of length
Hydraulic	**400 VAC**	35 Amp	6 mm^2 up to 15 m of length

TABLE 1-7

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

1.10 Noise Level

See Table 1-8. The average noise level is given in the table below[12].

Sawmill	Noise Level
LT20E15	L_{EX8} = 79,6 dB (A)
LT20D22	L_{EX8} = 85,6 dB (A)
LT20G25	L_{EX8} = 88,1 dB (A) [1]

TABLE 1-8

[1] The noise level measurement was taken in accordance with PN-EN ISO 9612 Standard.

1.11 Overall Dimensions

See Table 1-9. The overall dimensions of the LT20 series sawmill are listed below.

Model	Length [1]	Width [2]	Width Operating Position (Loading Arms Raised)	Height [3]	Weight	Weight w/Trailer
LT20S w/Trailer	6.7 m	2 m	3.5 m	2,5 m	923 kg	1068 kg
LT20M	8 m	2 m	3.5 m	2,5 m	1013 kg	1158 kg
LT20L	10,8 m	2,3 m	3,8 m	2,5 m		

TABLE 1-9

[1] Length from hitch to chain bracket.
[2] Width from fender to fender.
[3] Height from ground to mast. Placing head in maximum position will add to total height.

See Figure 1-1. The LT20 S & M type frame sawmill's operator position is shown below.

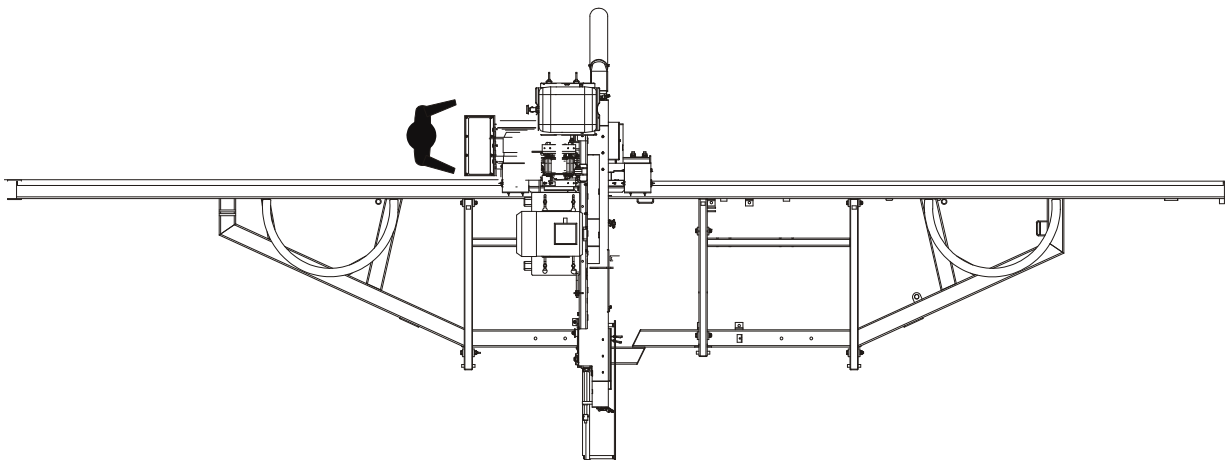


FIG. 1-1

The LT20 L type frame sawmill's operator position is shown below

---

1. The noise level measurement was taken in accordance with PN-EN ISO 3746 Standard.
The noise exposure level given above concerns an 8-hour work day.
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.

1.12 Chains

See Table 1-10. The load capacity of the chains is listed below.

	Load Capacity According to ISO No 08A-1
Up/Down Chain	2270KG

TABLE 1-10

1.13 Sawdust Extractor Specifications

CAUTION! Always turn on the dust extractor before starting the machine.

See Table 1-11. The dust extractor specifications are given below.

Maximum Capacity	1200 m^3/h
Collector Inlet Diameters (in front of fan)	150 mm
Motor Power	1.5 kW
Number of Sacks for Waste	1 pcs
Total Capacity of Sacks	0.25 m^3
Weight	110 kg
Conveying Speed When 10 m Long Hose Is Used	20 m/s

TABLE 1-11

1.14 Components

See Figure 1-2. The major components of the Wood-Mizer LT20 Series are shown below.

FIG. 1-2

1.15 LT20 Hydraulic Schematic (sawmills with optional manual hydraulic loader)

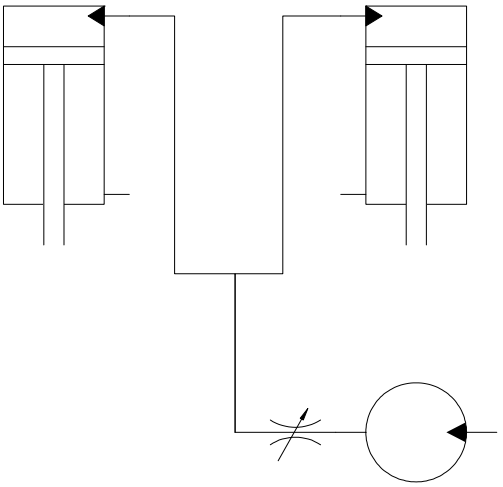


FIG. 1-2 HYDRAULIC SCHEMATIC

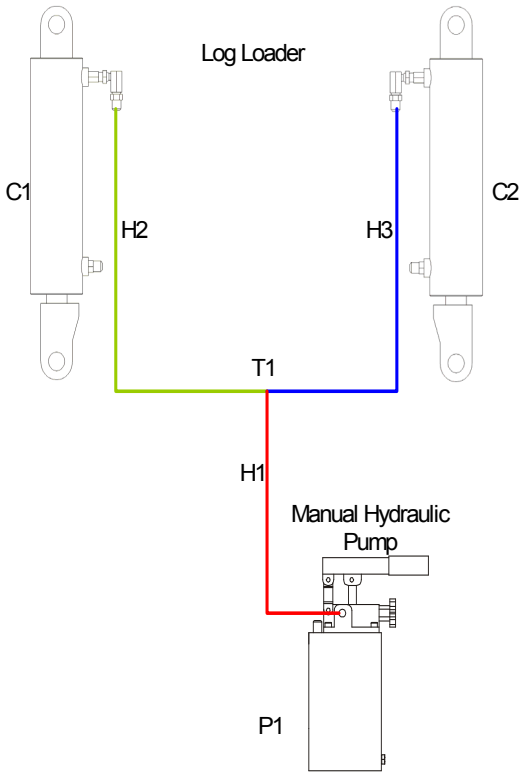


FIG. 1-2 HYDRAULIC LAYOUT DIAGRAM

1.16 Hydraulic Components, LT20 M

ID	Wood-Mizer Part No.	Description
C1, C2	088680	Cylinder,CJ-S95-16-70/32/203 Hydraulic
P1	090309	Pump, TYP PAM 014 2500, ZB. 3L Manual
T1	015487	T-Connector, 3/8JIC

TABLE 1-11

1.17 Hydraulic Hoses, LT20 M

ID	Length"A"	Description	Wood-Mizer Part No.
H1	4,6m	Hydraulic Hose 3/8"	091843
H2	2,2m	Log Turner Cylinder Top 3/8"	091844
H3	1,2m	Log Turner Cylinder Top 3/8"	091845

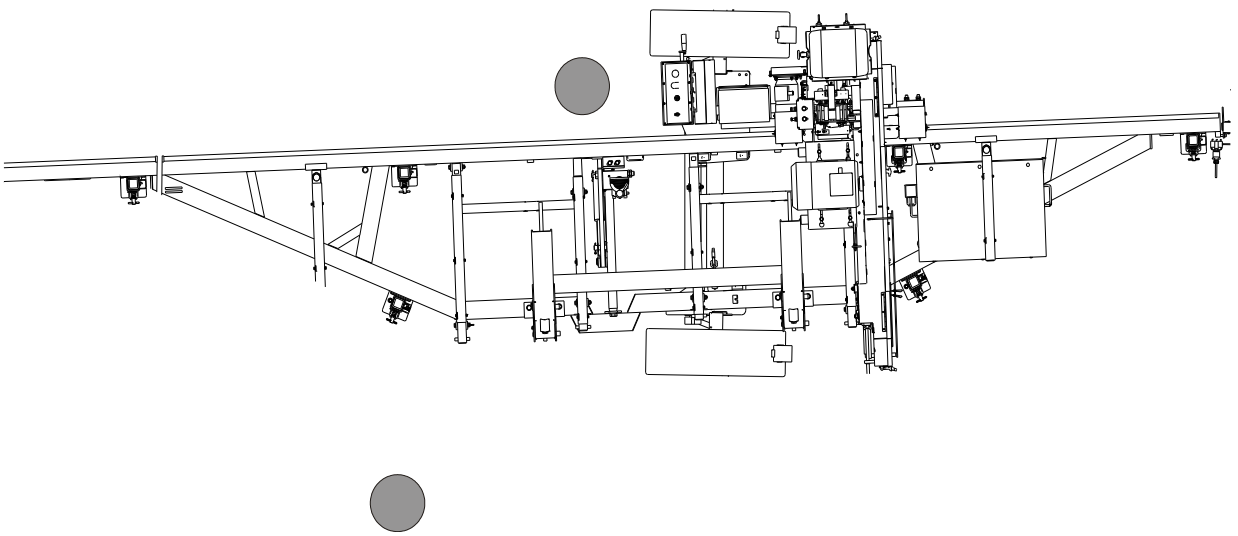
TABLE 1-11

SECTION 2 SETUP & OPERATION

2.1 Sawmill Setup

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

- Set up the sawmill on firm, level ground and level the sawmill. Secure the sawmill to the ground to prevent moving during operation. A concrete foundation or pads (rated to support 31 T/m^2 at each sawmill foot position) and 16mm anchored bolts are recommended.
- Under roof, the sawmill should always be operated with the sawdust collection system.
- The sawmill can be operated under roof only.
- The sawmill can be operated in temperature range from -15^o C to 40^o C only.
- The illumination at the operator's position should be at least 300lx.
- The sawmill operator’s position is shown below.



- 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	Suggested Wire Size
400 VAC	40 A	6 mm^2 up to 15 m long

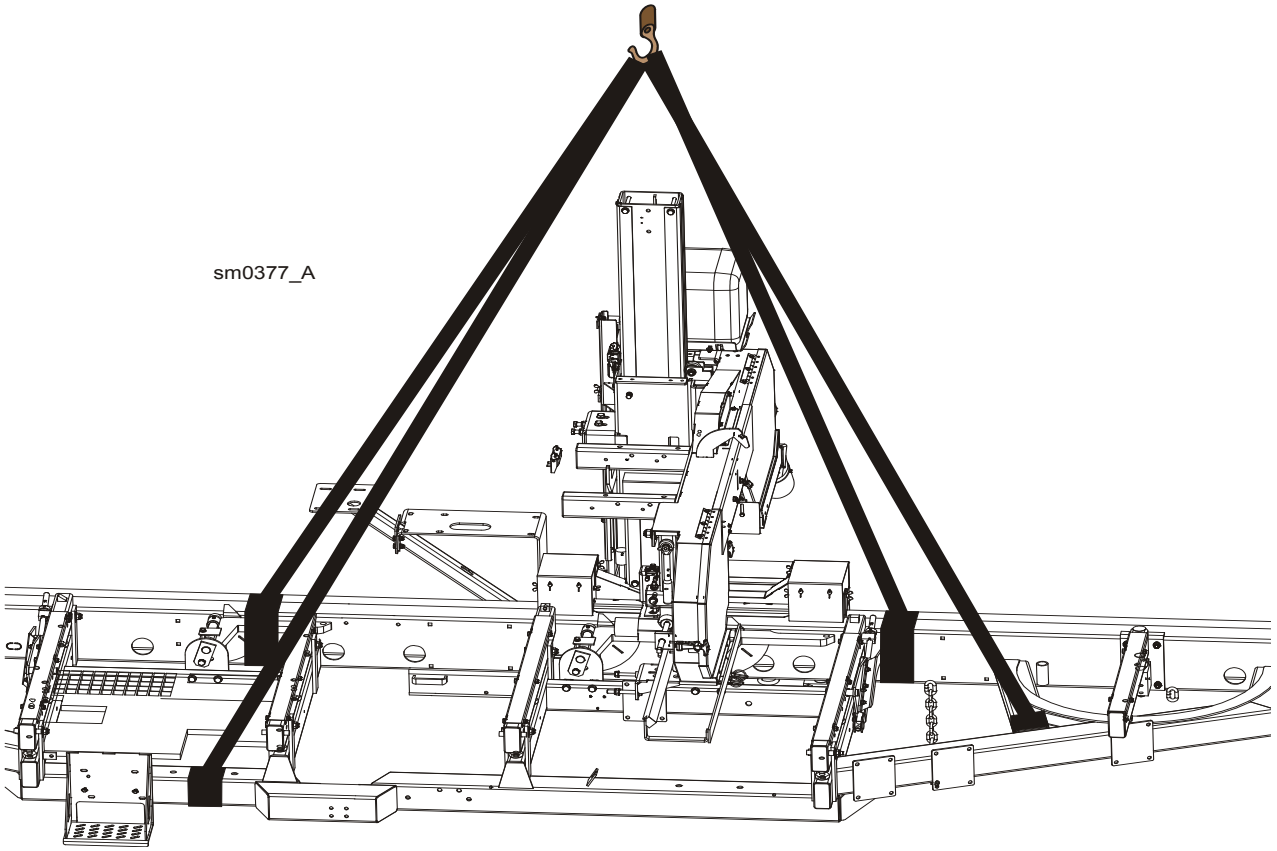
TABLE 2-0

IMPORTANT! When starting the machine for the first time, check that main motor rotation direction is as indicated by the arrow located on

the motor body (fan guard). 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.

- Tie the belts in the places shown on the picture below. The sawmill can be lifted using a forklift, a winch or a crane. The belts and the lifting equipment must be rated for at least 3000kg (6600 lb).

WARNING! When lifting the sawmill, use extreme caution and keep all persons at a safe distance. Failure to do so may result in serious injury or death.



2.2 Stationary Sawmill Setup

Set up the mill on firm footing and level by eye. Fasten the mill to the floor to prevent any creep after prolonged use. A cement pad with 5/8" (16 mm) diameter anchor bolts is recommended. The cement pad should be rated to support 6350 lbs./sq.ft. (31 T/m) at each sawmill foot position.

NOTE: Make sure the unit is level before securing.The sawmill mast should not be tilted from the vertical more than 3^{o} towards the log loader. The mast should not be tilted in the opposite direction.

Level the sawmill by adjusting the feet to raise or lower each end of the sawmill. Adjust all feet evenly to avoid twisting the mill frame by jacking one feet higher than the others.

WARNING! Do not operate a stationary sawmill without the feet

securely fastened to the floor.

See Figure 2-1.

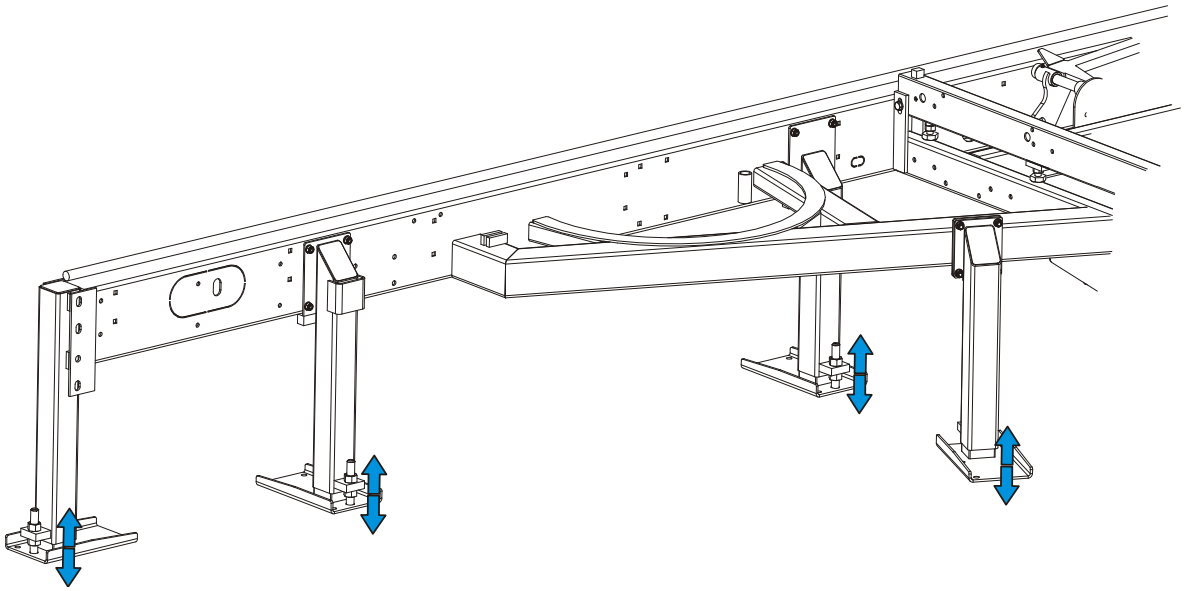


FIG. 2-2

See Figure 2-3. Sawmill Mast Tilt

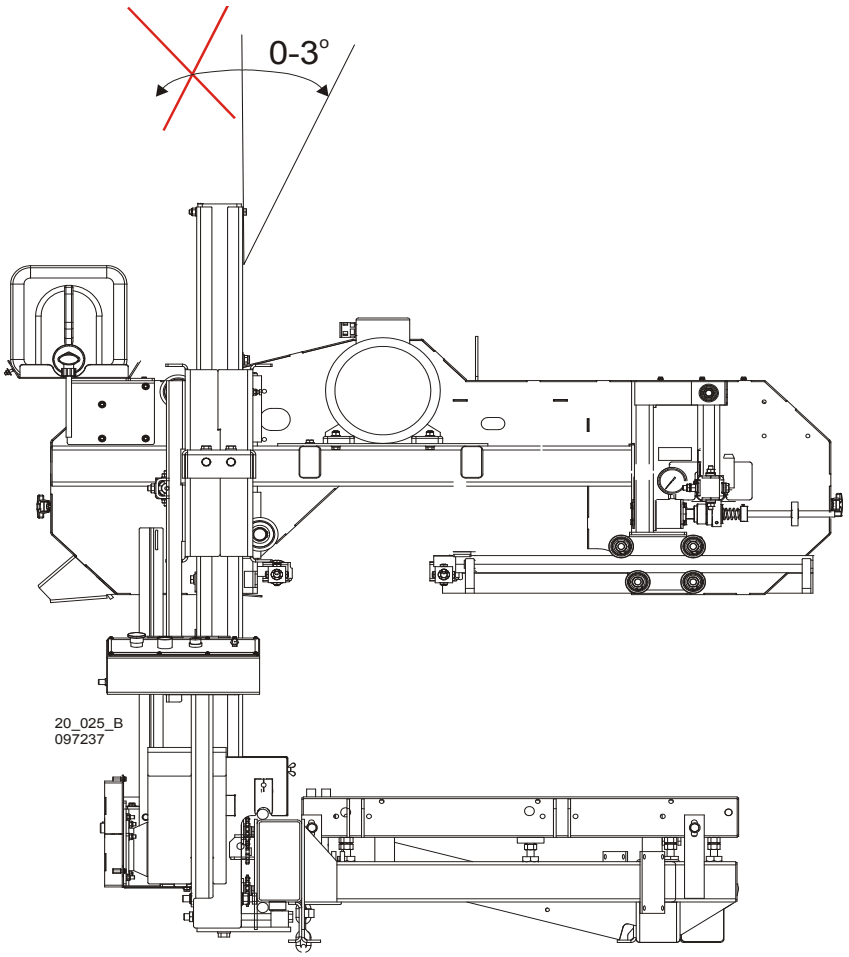
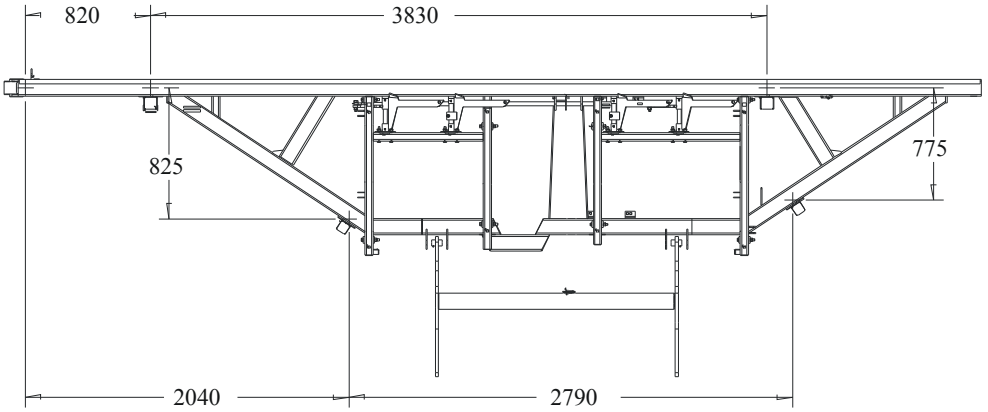
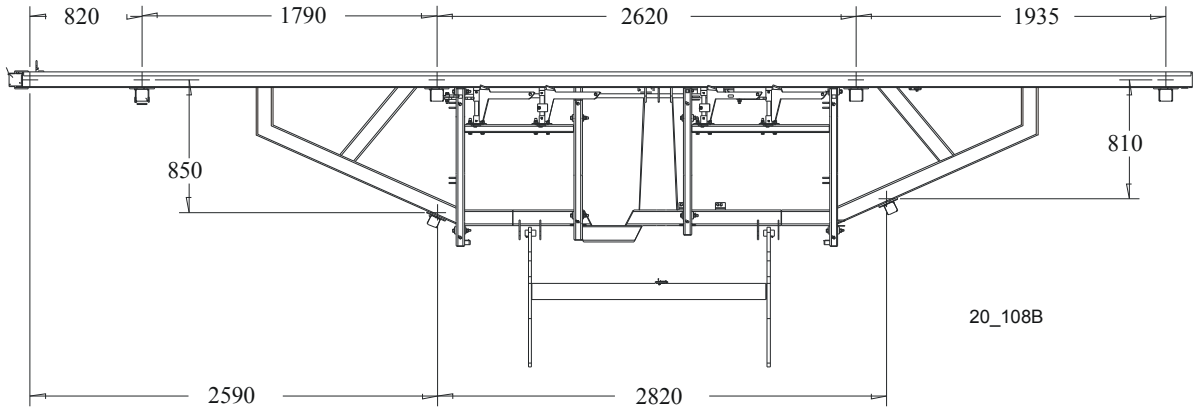


FIG. 2-4



LT20 S Stationary Metric Dimensions*



LT20 M Stationary Metric Dimensions*

*All dimensions in millimetres

FIG. 2-5

1. Unhook the carriage safety chain, located at the bottom of the vertical mast.

2. Use the up/down crank or the up/down switch to raise the cutting head from the carriage rest pin. Swing the rest pin below bed level.

3. Use the power feed switch to move the cutting head toward the front end of the mill. Raise the two side supports that will prevent a log from falling off the side of the mill when loaded.

See Figure 2-6.

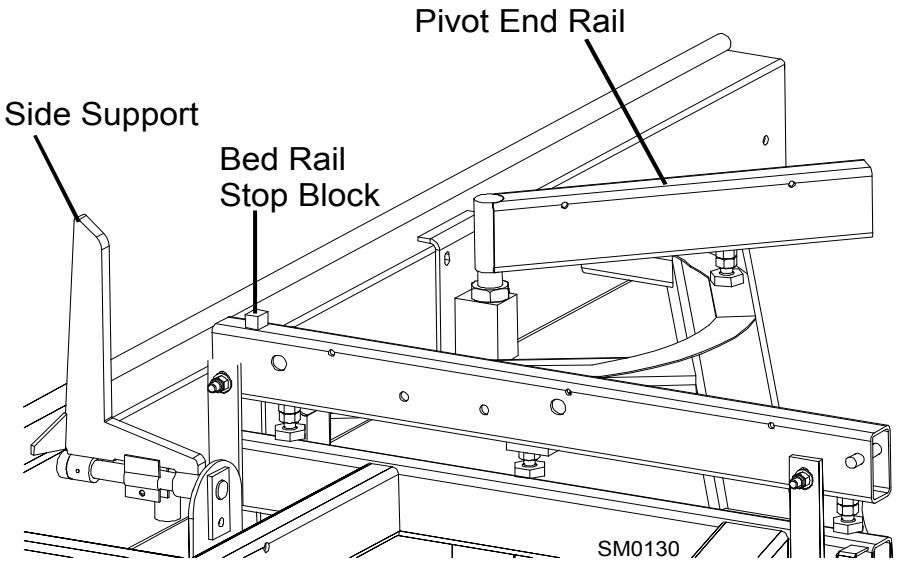


FIG. 2-7

2.2.1 Sawmills with cable guide

See Figure 2-1. The figure below shows setup of the sawmill, the control box and the cable guide columns.

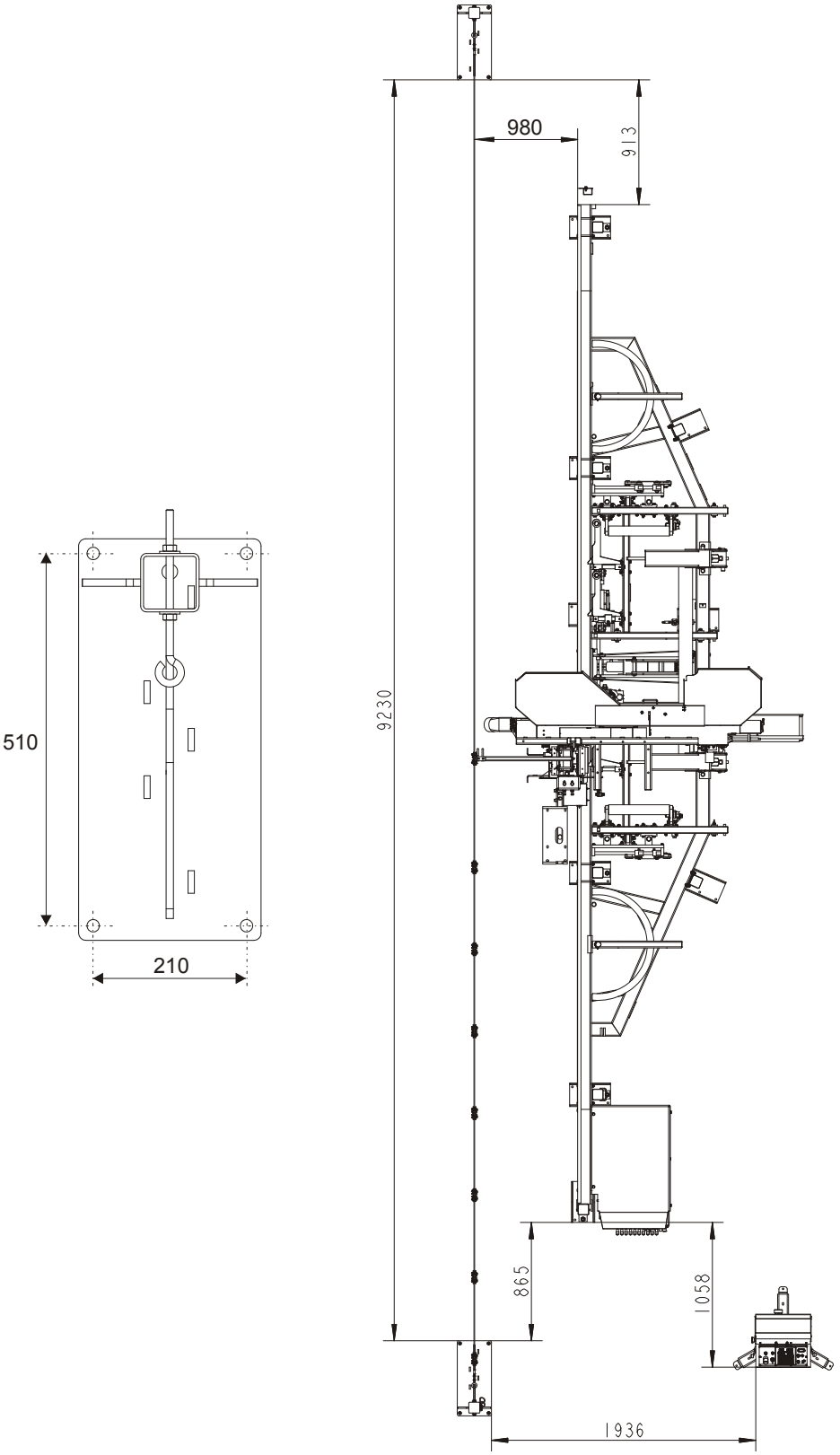


FIG. 2-2 LT20MRC

See Figure 2-3. The electrical wires should be installed on the cable guide as shown below.

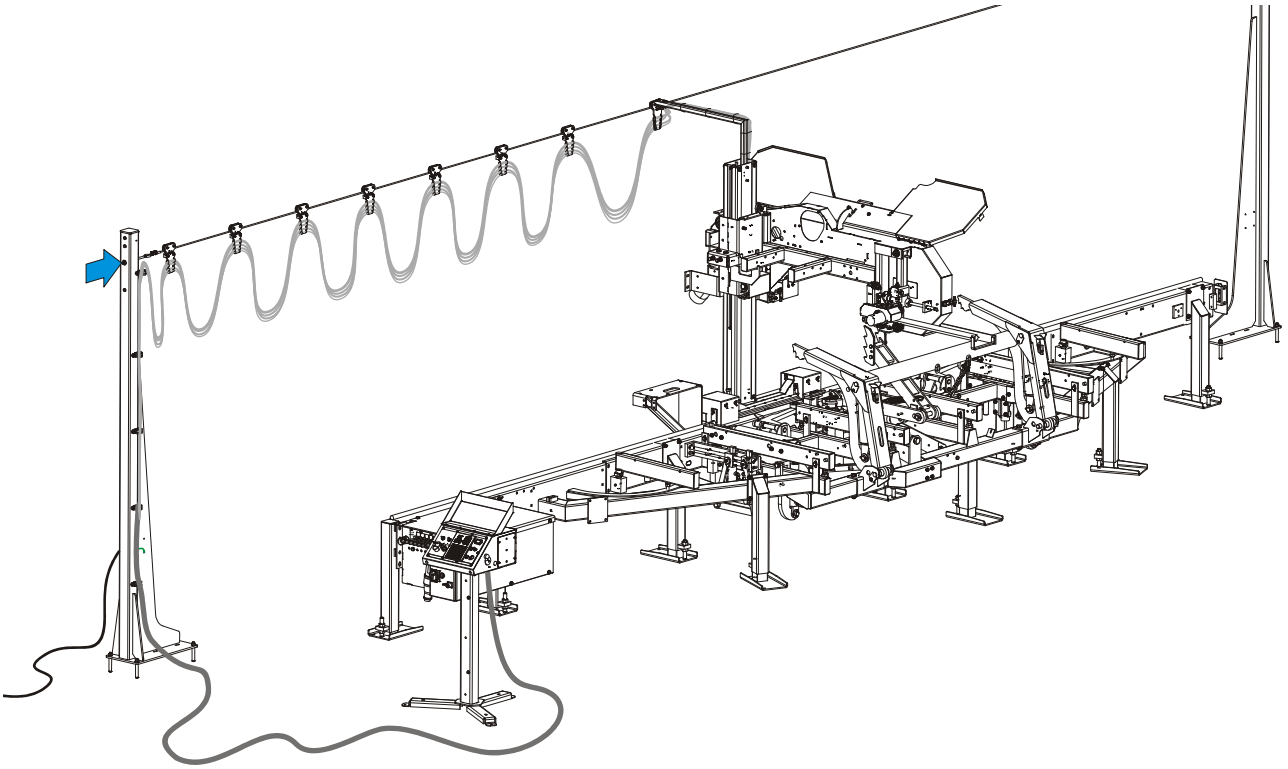


FIG. 2-4

See Figure 2-5. The figure below shows how the electrical wires should be installed on the roller hangers.

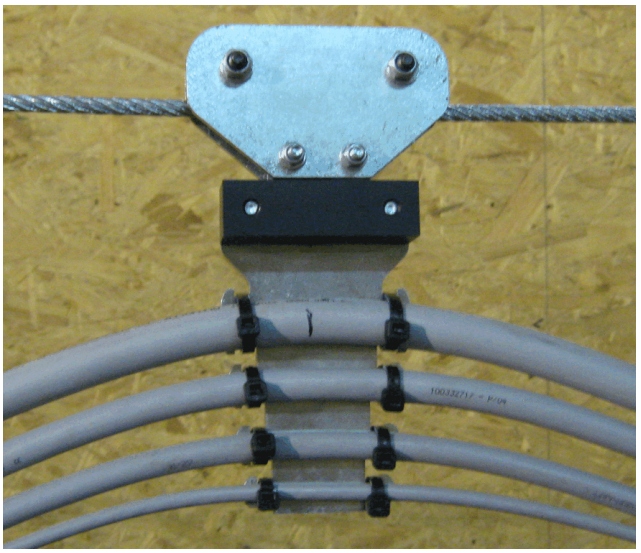


FIG. 2-6

CAUTION! Be sure the larger diameter cables are mounted to the upper brackets of the roller hangers, and the smaller diameter cables are mounted to the lower brackets of the hangers.

FIG. 2-7

2.3 Portable Sawmill Setup

WARNING! If it is necessary to set up the sawmill on ground with more than 3° incline, dig out areas for outrigger legs to prevent the sawmill from tipping over.

WARNING! Chock the trailer wheels to prevent movement before unhitching it from the towing vehicle. Failure to do so will result in serious injury or death.

1. Pull the hand brake to prevent the sawmill from moving.

1. Unhitch the mill from the vehicle.

2. Lower and set the front fine adjust outriggers. To do this, first manually pull the locking pin out of the outrigger hole. When the outrigger contacts the ground, release the pin. Then using a 19 wrench, turn the outrigger adjustment bolt until the locking pin enters the nearest outrigger hole.

WARNING! Put front outrigger down before moving cutting head from the rest position. Failure to do so may result in serious injury.

See Figure 2-2.

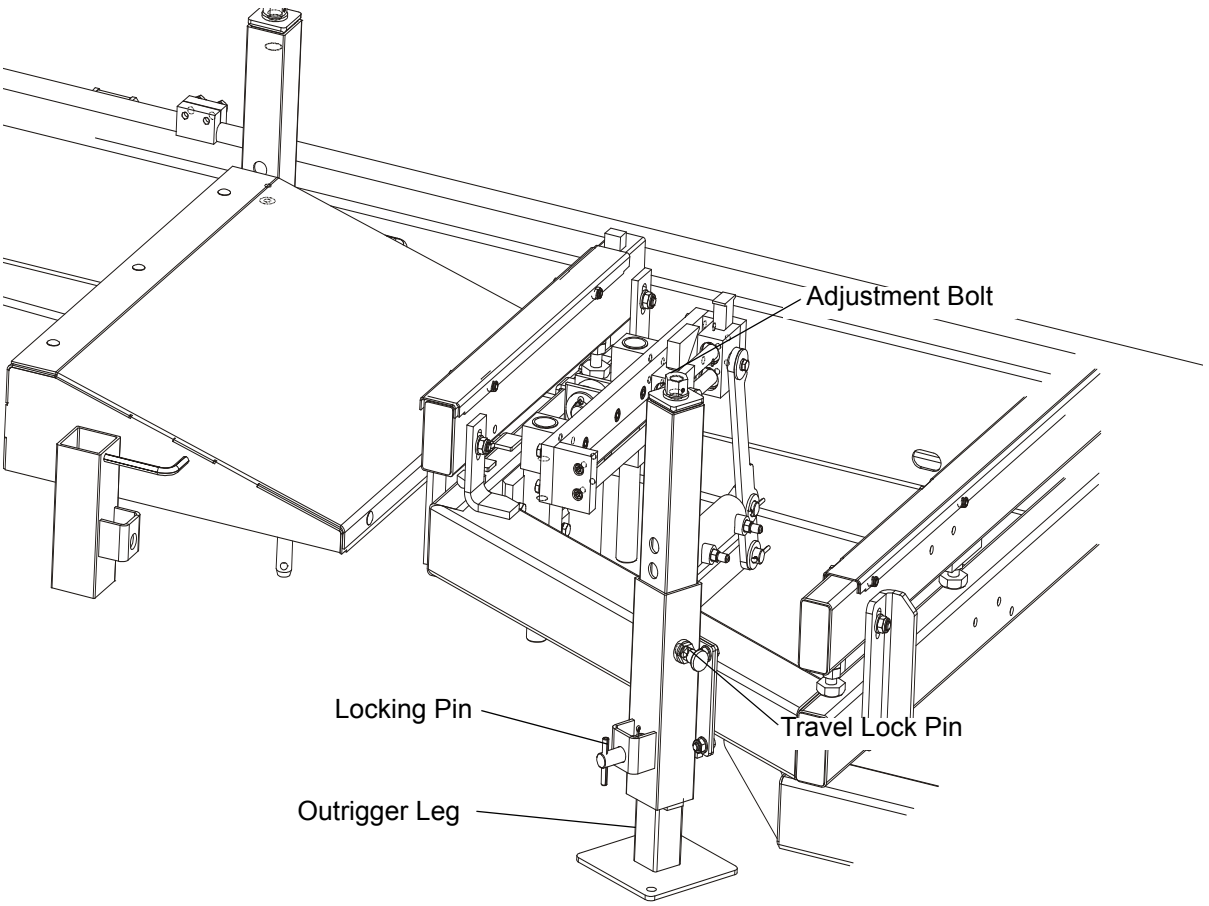


FIG. 2-3. OUTRIGGER ADJUSTMENT

3. Remove the fenders by lifting them out of the slots.

CAUTION! When setting up the sawmill on boggy terrain (such as deep mud or sand), place a board or a metal plate under each outrigger leg to prevent the legs from sinking.

4. Unhook the carriage safety chain, located at the bottom of the vertical mast.

5. Use the up/down switch to raise the cutting head from the carriage rest pin. Remove the distance block from the stop bolt.

See Figure 2-4.

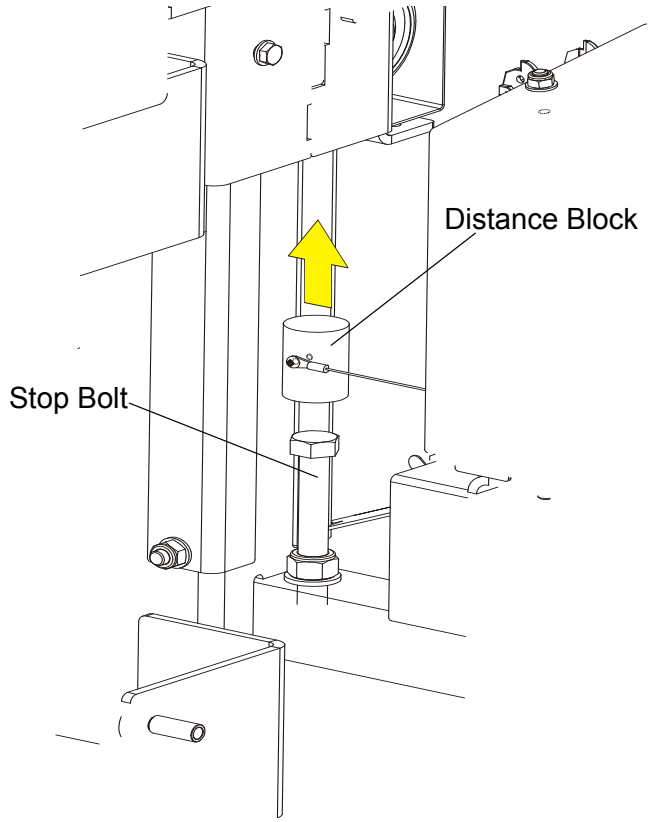


FIG. 2-5

WARNING! Put front outrigger down before moving cutting head from the rest position.

CAUTION! To prevent fender damage, remove fenders before operating sawmill or loading logs.

6. Use the power feed switch to move the cutting head toward the front or the rear end of the mill. Lower and set the remaining rear outriggers.

7. Level the sawmill by adjusting the outriggers to raise or lower each end of the sawmill. Adjust all outriggers evenly to avoid twisting the mill frame by jacking one outrigger higher than the others.

Raise the two side supports to prevent the log from falling off the side of the mill when loaded.

See Figure 2-6.

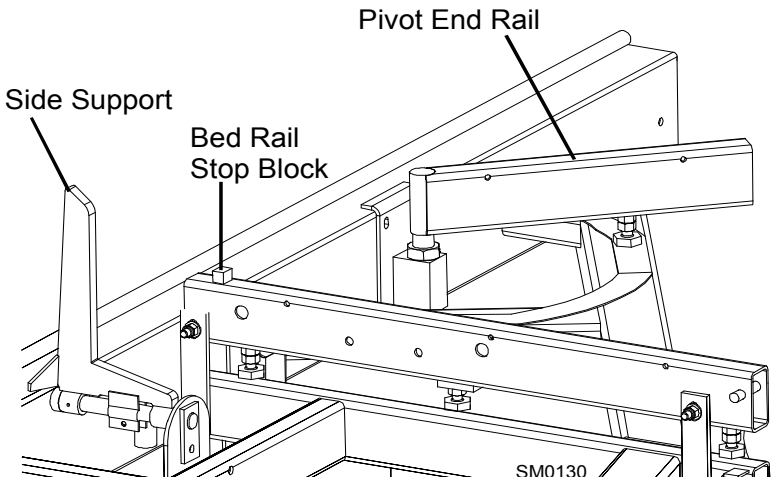


FIG. 2-7

2.4 Middle Track Cover

Before operating the sawmill do as follows:

1. Clean the upper and lower rails to remove any sawdust and rust preventives.
2. Unbolt and remove the middle track cover from its storage position.
3. Soak the felt wiper with Dexron III transmission fluid, 10W30 motor oil or 3-in-1 turbine oil.
4. Install the middle track cover so it fits against the rail and secure with two thumb screws.

See Figure 2-8.

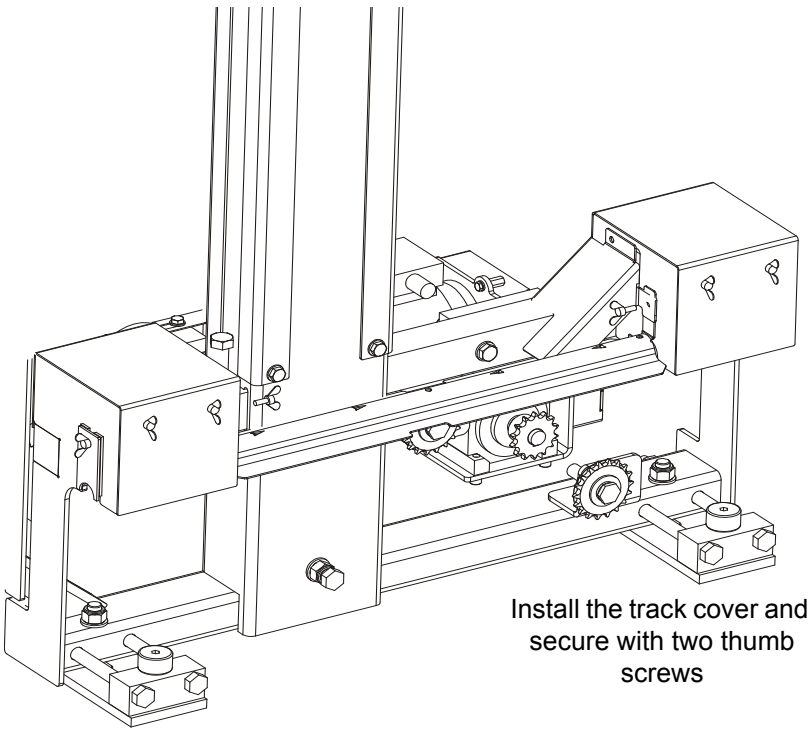


FIG. 2-9

CAUTION! Install the track cover so that it lightly touches the track rail. If the wiper presses too firmly against the rail, it can cause the power feed to bind.

2.5 Replacing The Blade

DANGER! Always shut off the sawmill motor before changing the blade. Failure to do so may result in serious injury.

WARNING! Always wear gloves and eye protection whenever handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from work area when

changing blades. Failure to do so may result in serious injury.

Raise the blade housing cover. Turn the blade tension handle to release the blade tension until the wheel is pulled in and the blade is lying loose in the blade housing. Lift the blade out of the blade housing.

When installing a blade, make sure the teeth are pointing the correct direction. The teeth should be pointing toward the operator side of the mill when you are looking at the blade below the blade guides. Install the blade so it is lying around the wheels.

Position 1 1/4” wide blades on the wheels so the gullet is 3.0 mm (± 1.0 mm) out from the front edge of the wheel.

Close the blade housing cover.

Next, turn the tension handle until the blade is tensioned correctly.

CAUTION! Should you need to adjust the blade position, never grab the wheel arms to spin the idle-side blade wheel as your fingers can get pinched.

2.6 Tensioning The Blade

See Figure 2-10. Turn the blade tension handle clockwise until the tension gauge indicates the recommended tension. Check the blade tension occasionally when adjusting the cant control or while cutting. As the blade and belts heat up and stretch, the blade tension will change. Also, ambient temperature changes can cause tension to change. .

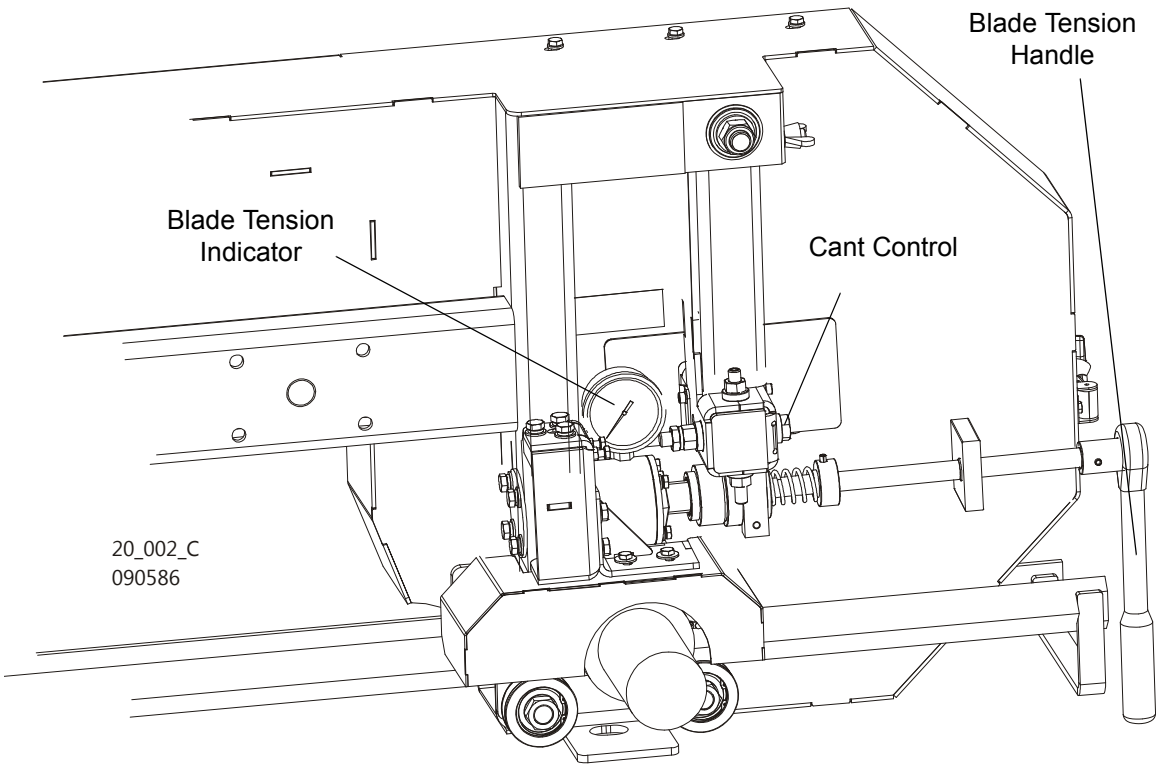


FIG. 2-11

CAUTION! Release the blade tension when the mill is not in use.

See Table 2-8. The recommended tension for different blades is shown below.

Blade Type	Blade Dimensions		Tension range	
	Width (mm)	Height (mm)	PSI	Bar
275	1.07	32	1015-1088	70-75
375	1.14	32	1088-1160	75-80
2735	1.07	35	1160-1233	80-85

TABLE 2-8

2.7 Tracking The Blade

1. Open the blade housing cover.
2. Turn the key switch to the ”H” position.

3. Manually spin one of the blade wheels until the blade positions itself on the blade wheels.
4. Check if the blade is properly positioned on the blade wheels.

   See Figure 2-12. Position 1 1/4” wide blade on the wheels so the gullet is 3.0 mm (0.12”) ± 1.0 mm (0.04”) out from the front edge of the wheel.

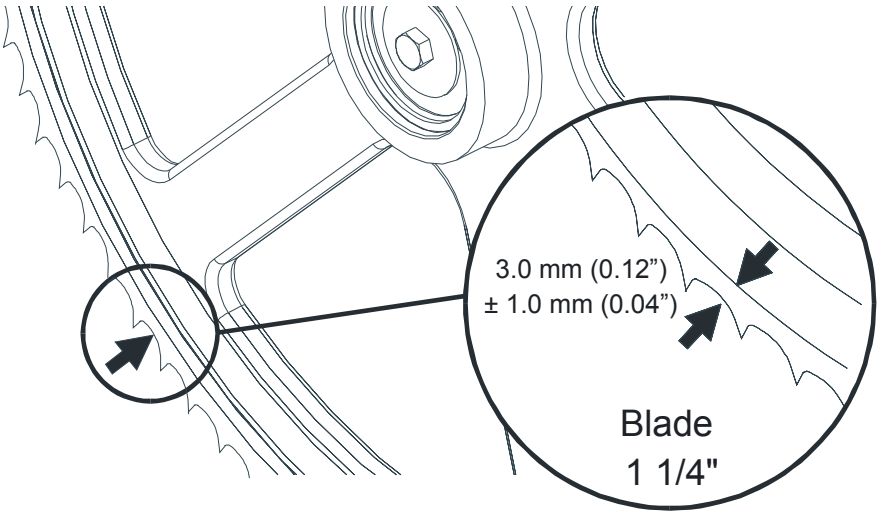


FIG. 2-13

5. Use the cant adjustment bolt, shown in **Figure 2-11** to adjust where the blade travels on the blade wheels.

   To move the blade out on the blade wheel, turn the cant adjustment bolt clockwise. To move the blade in on the blade wheel, turn the bolt counterclockwise.

6. After adjusting the tilt of the blade wheels with the cant adjustment bolt, tension the blade properly.

7. Close the blade housing cover.

DANGER! Make sure all guards and covers are in place and secured before operating or towing the sawmill. Failure to do so may result in serious injury. Be sure the blade housing cover is in place and secured.

DANGER! After aligning the blade on the wheels, always check the blade guide spacing and location. (See Section 5 for more information.)

2.8 Starting The Motor

See the appropriate manual supplied with your specific motor configuration for starting and operating instructions.

IMPORTANT! For safe operation of the sawmill, one person is sufficient, however in case of manual collection of sawn material, at least two persons should be assigned to these activities in order not to exceed the manual lifting standard.

CAUTION! Before starting the sawmill, the operator must warn all persons who are nearby of the intention of starting the machine.

IMPORTANT! The sawmill should be operated only by a qualified person of age, being in good state of health confirmed by a medical certificate.

IMPORTANT! When starting the machine for the first time, check that main motor rotation direction is as indicated by the arrow located on the motor body (fan guard). 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 sawmill motors.

WARNING! Make sure all guards and covers are in place and secured before operating or towing the sawmill. Failure to do so may result in serious injury. Be sure the blade housing cover is in place and secured.

WARNING! Do not start the motor when the clutch/brake lever is in the engaged position. Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the motor. Failure to do so will result in serious injury.

WARNING! Always wear eye, ear, respiration and foot protection when operating the machine. Secure all loose clothing and jewelry before operating the sawmill. Failure to do so may result in serious injury.

WARNING! Always connect and start the dust extraction system before starting the machine, *See Section 1.13*.

CAUTION! If at any time you need to immediately stop the blade motor, press the emergency stop button located on the control box.

Before starting the sawmill at a new location, at least once a year or after every repair have a qualified electrician (having appropriate measurement qualifications) check the insulation resistance and electric shock protection of the electrical system.

The electric box should be protected against dust and moisture. Regulary disconnect power supply and clean the inside of the electric box of dust, sawdust, etc. Do not operate or leave the sawmill with the electric box door open.

DANGER! Hazardous voltage inside the electric box (even if disconnected with the main disconnect switch) and at the motor can cause shock, burns, or death. Always disconnect power supply before servicing!

2.9 Loading, Turning, And Clamping Logs

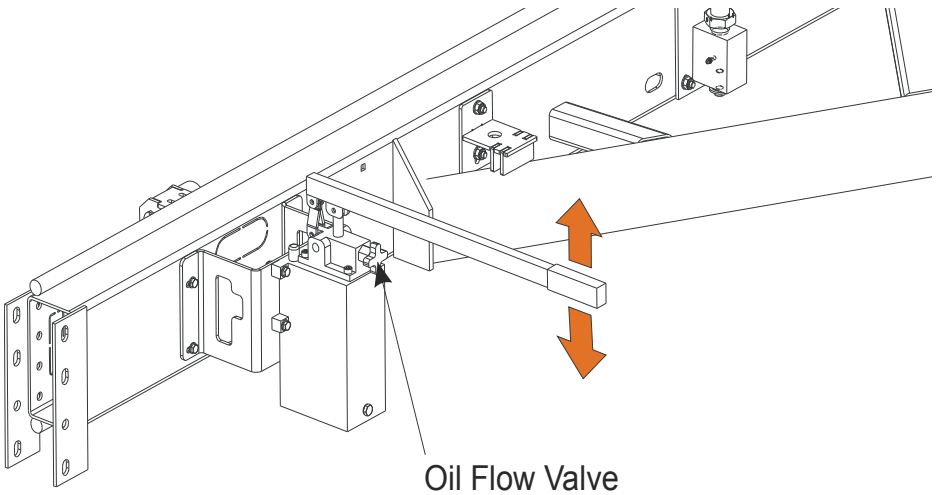
CAUTION! Make sure the pivot rails, turning arm, clamp, and toe boards are below bed level before loading a log onto the bed. Also, be sure the cutting head is moved far enough forward so the log does not hit it.

To Load Logs:

1. Place the log on the loading arms. You can use a cant hook to do this. Roll the log onto the loader so that it is approximately centered with the sawmill bed. The log turner will operate much easier if the log is centered on the sawmill bed.

2. Raise the side supports.

3. Make sure the oil flow valve is closed. To close the valve, turn the valve knob clockwise. Moving the loader lever up and down, raise the loading arms until the log rolls onto the bed.



4. Lower the loading arms by opening the oil flow valve. To open the valve, turn the valve knob

counterclockwise. Leave the loading arm halfway down while positioning the log on the bed. This will prevent the log from rolling of the bed.

NOTE: Logs also may be loaded onto the mill with a fork lift or other equipment specifically designed for that purpose.

NOTE: It is recommended that the log loader be left in the up position when the mill is not in use. This will prevent the hydraulic cylinders from corroding.

To Turn Logs:

1. Use the log turner to rotate the log on the sawmill bed.
2. Spin the log against the side supports until it is turned the way you want it for the first cut. If you want to turn the log more, do the following steps.
3. Raise the turner arm to get a new bite on the log.
4. Disengage the clamp.
5. The log can be turned now. Repeat steps 4 through 7 until the log is turned as desired.

To Clamp Logs:

1. Position the clamp against the log.
2. Move the clamp down far enough so that it is below your first few cuts. Using the clamp lever, clamp the log against the side supports.

See Figure 2-14.

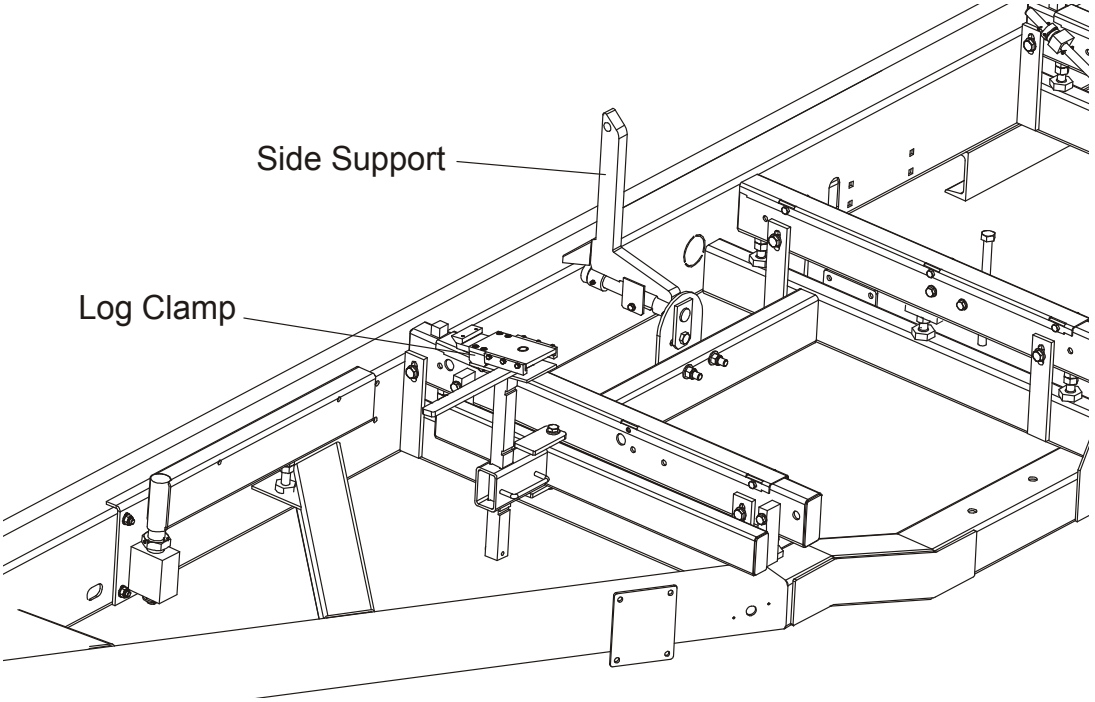


FIG. 2-15

3. Make sure the side supports are positioned low enough for the blade to pass over them. If they are not, back the clamp off slightly and push the side supports down until they are positioned below the level of your first few cuts.

4. Use the toe board levers to level the log if desired.

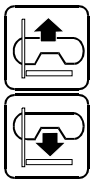
   To Level A Tapered Log:

   Use the toe board levers to raise either end of a tapered log, if desired.

2.10 Up/Down Operation

1. Install a blade and check for correct blade tension. (*See Section 2.4.*)

2. Set the cutting head to the desired height. (The blade height scale shows the height of the blade above the bed rails.)



See Figure 2-16. The up/down switch is located on the right side of the control panel. Push the switch up to raise the cutting head; push the switch down to lower the cutting head. Hold the switch

in position until the cutting head reaches the desired height, then release.

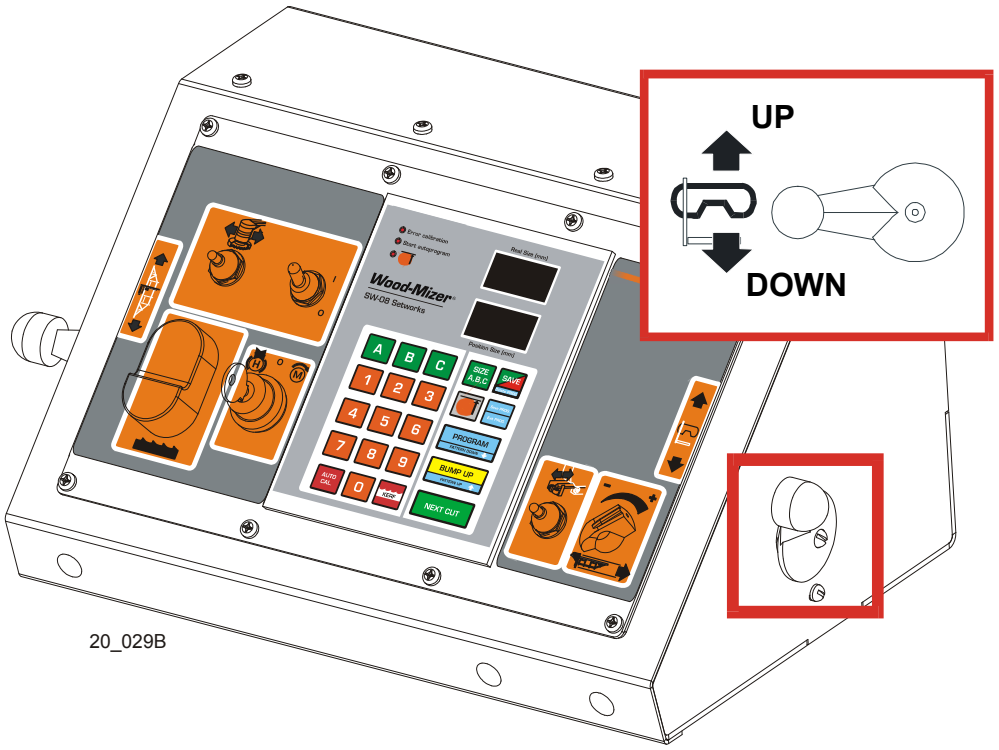


FIG. 2-17

The up/down switch is designed to return to the neutral position when released. If the switch remains engaged, manually move it to the neutral position. Repair the switch.

CAUTION! DO NOT try to force the carriage above the 35” (88 cm) mark or below the 1” (2.54 cm) mark. Damage to the up/down system may result.

2.11 Blade Guide Arm Operation

1. Look down the length of the log to see its maximum width. The outer blade guide should be adjusted to clear the widest section of the log by less than about 25 mm.

2. Use the blade guide toggle switch on the control panel to adjust the outer blade guide as necessary. Push the switch to the left to move the arm in. Push the switch to the right to move the arm out.

See Figure 2-18.

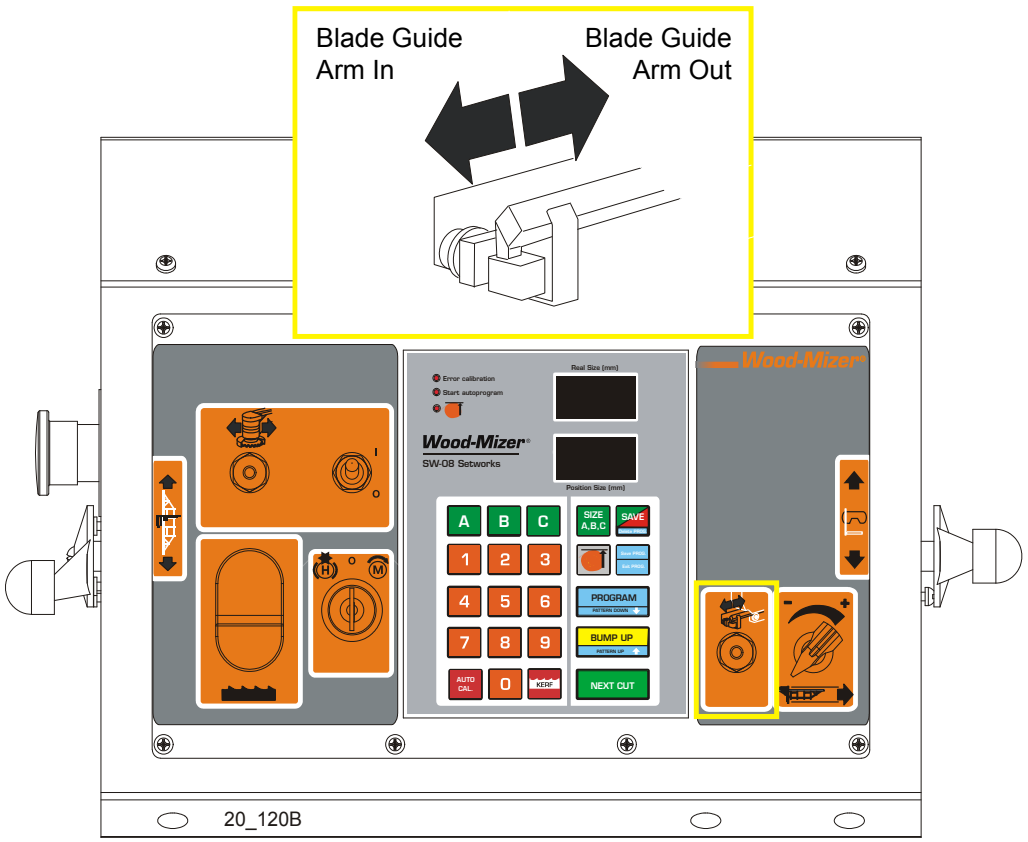


FIG. 2-19

2.12 Power Feed Operation

See Figure 2-20. The power feed system moves the carriage forward and backward by using two switches on the control panel.

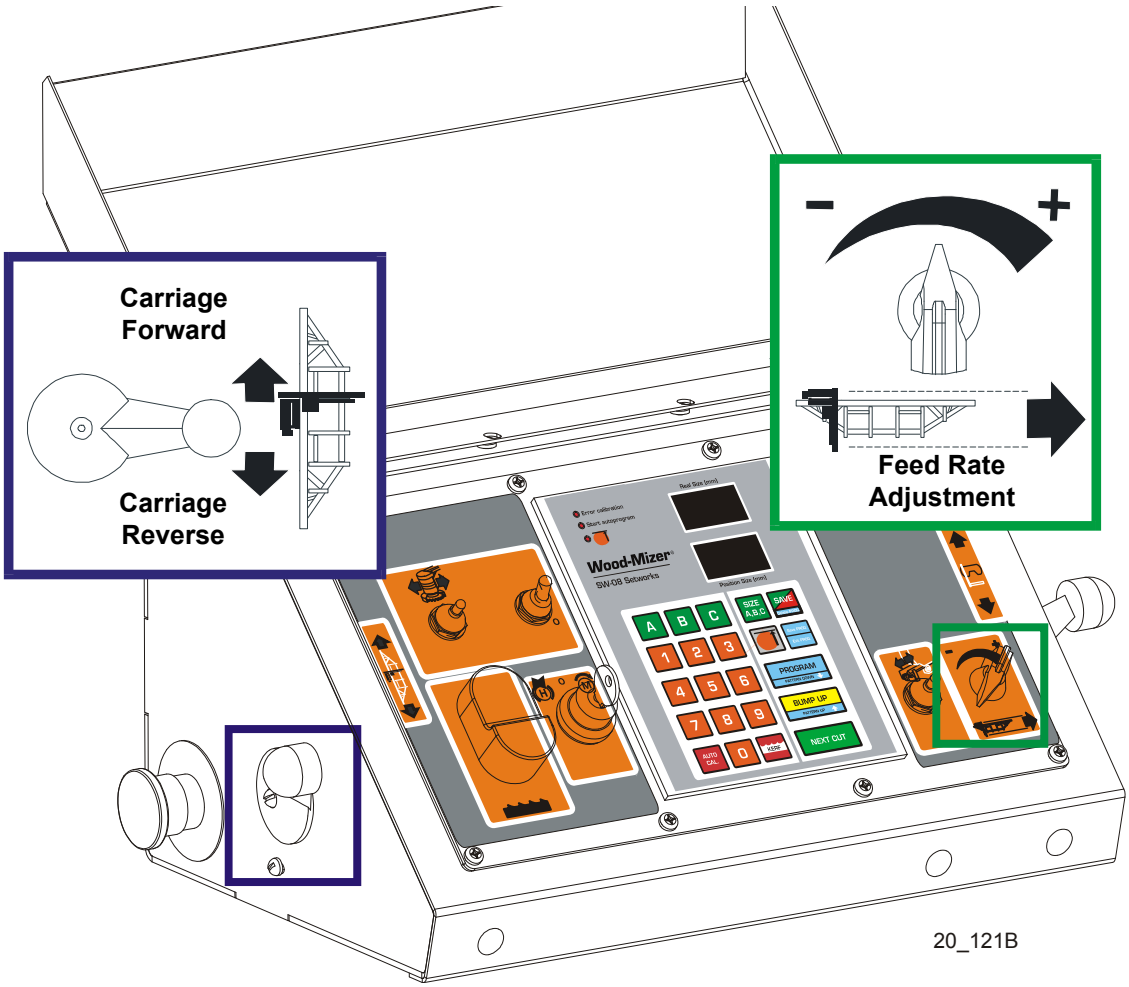
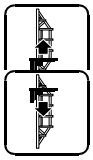


FIG. 2-21

Carriage Feed Rate

The carriage feed rate switch controls the speed at which the carriage travels forward. Turn the switch clockwise to increase speed. Turn it counterclockwise to reduce speed.

Carriage Forward and Reverse



The power feed switch controls the direction in which the carriage travels. Turn the switch upward to move the carriage forward. Turn the switch down to move the carriage backward.

NOTE: Always disengage the blade before returning the carriage and raise the carriage slightly to make sure the blade clears the log.

The middle position (shown in the figure above) is the neutral position. The power feed switch is designed to return to the neutral position when released. If the switch remains engaged, manually

move it to the neutral position. Repair the switch. (*See Section 4.2.*)

WARNING! Be sure the power feed switch is in the neutral position before turning the key switch to the ON position. This prevents accidental carriage movement which may cause serious injury or death.

Feed Rate

HINT: To get a straight cut in the first part of the log, feed the blade into the log at a slow speed. This stops the blade from flexing and dipping up or down. Turn the carriage feed rate switch to a slow speed until the whole width of the blade has entered the cut. Then use the carriage feed rate switch to increase the feed rate as desired. Maximum feed rate varies with width and hardness of the wood. Over-feeding results in motor and blade wear, and also produces a wavy cut.

1.

Stop the carriage at the end of the cut by turning the carriage feed rate switch counterclockwise until the carriage stops moving.

2. Using the clutch/brake lever, disengage the blade. This will stop the blade and drop the motor to idle. Remove the board from the log. (DC)

3. Using the STOP button, disengage the blade. This will stop the blade. Remove the board from the log.(AC)

CAUTION! Be sure to stop the blade when returning the carriage. This will not only prevent the blade from being pulled off and ruined by a wood sliver, but also will increase the life of the blade.

4. Return the carriage to the front of the mill by turning the power feed switch down. The power feed motor will bypass the carriage feed rate switch and the carriage will automatically return at the fastest speed available. **Always disengage the blade before returning the carriage for the next cut.**

CAUTION! Do not use the blade guide arm crank to move the carriage forward and backward. Damage to the blade guide arm may result.

5. Make sure that the blade does not catch on the end of the log. Raise the carriage slightly to make sure the blade clears the log when returned. **HINT:** Try to stop the blade while the heel of the blade is still on the log. Then bring the carriage back without adjusting the blade up. This lets you keep the blade at the current height setting so you can make the next blade height adjustment more quickly.

DANGER! Stay clear of the area between the trailer axle and saw carriage. Failure to do so will result in serious injury.

2.13 Cutting The Log

The following steps guide you through normal operation of the Wood-Mizer sawmill.

1. Once the log is placed where you want it and clamped firmly, position the blade close to the end of the log.

2. Use the blade height scale to determine where to make your first cut. (*See Section 2.15*.) Set the blade to the desired height with the up/down switch. Make sure that the blade will clear both side supports and the clamp.

3. Adjust the outer blade guide to clear the widest section of the log using the blade guide toggle switch.

Make sure all guards and covers are in place. Engage the blade. To do this, turn the key switch to the ”M” position and press the START button.

5. To prevent sap buildup on the blade, open the water bottle valve so that water flow to the blade. (*See Section 2.19.)*

6. Feed the blade into the log slowly. *(See Section 2.12.)* Once the blade completely enters the log, increase the feed rate as desired. Always try to cut at the fastest speed you can while keeping an accurate cut. Cutting too slowly will waste blade life and lower production!

7. As you get to the end of the log, slow down the feed rate. When the teeth exit the end of the log, turn the power feed switch to the neutral position. Then disengage the blade using the STOP button. Remove the board that you have just cut from the log.

8. Use the power feed switch to move the carriage to the front of the mill. Always disengage the blade before returning the carriage for the next cut.

9. Repeat until the first side of the log is cut as desired. Set aside the usable flitches (boards with bark on one or both sides). You can edge them on the mill later.

10. Lower the toe boards, if they were used. Remove the clamp and turn the log 90 or 180degrees. Make sure the flat on the log is placed flat against the side supports if turned 90degrees. Make sure it is placed on bed rails if turned 180 degrees. If the log was turned 90degrees and you are using toe boards to compensate for taper in the log, raise the front or rear toe board again on the second side of the log until the heart is parallel with the bed.

11. Repeat the steps used to cut the first side of the log until the log is square. Cut boards from the remaining cant by adjusting the blade height for the thickness of boards that you want.

    Example: Remember that the blade cuts a 1/16 - 1/8” (1.5-3.0 mm) wide kerf. If you want 1” (25.4 mm) thick boards, lower the carriage 1 1/16 - 1 1/8” (27-28.6 mm) for each board.

2.14 Edging

The following steps guide you through edging boards on the Wood-Mizer sawmill.

1. Raise the side supports to ˝ the height of the flitches, or the boards that need to be edged.
2. Stack the flitches on edge against the side supports.
3. Clamp the flitches against the side supports. (Wider flitches should be placed to the clamp side. When they are edged, flip them over to edge the second side without disturbing the other flitches or without having to pull them from the middle of the stack.)
4. Adjust the blade height to edge a few of the widest boards.
5. Loosen the clamp and turn the edged boards over to edge the other side.
6. Repeat steps 2-4.
7. Loosen the clamp and remove the boards that have good clean edges on both sides. Clamp the remaining flitches and repeat steps 2-5.

2.15 Blade Height Scale

See Figure 2-22. The blade height scale is attached to the cutting head frame. It includes:

- a blade height indicator
- an inch scale.

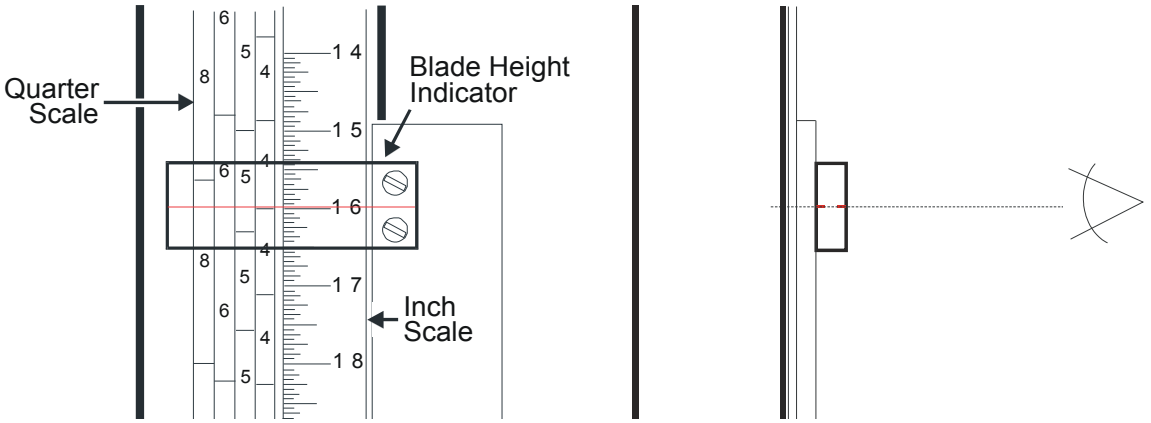


FIG. 2-23

Blade Height Indicator

The blade height indicator has two horizontal, red lines on both sides. Readings should be taken with eyes level with the indicator, when the two red lines are in line. This will allow to avoid the parallax error (different scale readings depending on the angle of vision).

The Inch Scale

The horizontal red line on the blade height indicator shows how many inches the bottom of the blade is above the bed of the mill. If you know the height of your blade at each cut, you can determine the thickness of lumber you are sawing.

Example: You want to cut 1” (25 mm) random width boards from a log. Position the blade for the first cut. Move the carriage to an even measurement on the inch scale. Make a trim cut. Return the carriage for the second cut and lower it 1 1/8” (28 mm) below the original measurement. (The extra 1/8” (3 mm) allows for saw kerf and shrinkage of the lumber.)

The yellow area on the scale identifies where the blade could encounter a side support or log clamp. Check that these items are below the blade level before sawing.

The Quarter Scale

See Table 2-9. The quarter scale hasTwo quarter scales are provided with four sets of marks. Each set represents a specific lumber thickness. Saw kerf and shrinkage allowance are included, but actual board thickness will vary slightly depending on blade thickness and tooth set.

An optional Grade Hardwood Quarter Scale is also available. To choose which scale to use, determine what finished thickness you want to end up with. The Grade Hardwood Quarter Scale provides thicker finished boards usually required by commercial buyers. The Standard Quarter Scale allows for kerf and shrinkage of finished boards suitable for most custom applications. Always check with your customer before you saw to determine what actual finished thickness is required.

Standard Quarter Scale	
Scale	**Actual Board Thickness**
4/4	1" (25 mm)
5/4	1 1/4" (32 mm)
6/4	1 1/2" (38 mm)
8/4	2" (51 mm)

Grade Hardwood Quarter Scale	
Scale	**Actual Board Thickness**
4/4	1 1/8" (29 mm)
5/4	1 3/8" (35 mm)
6/4	1 5/8" (41 mm)
8/4	2 1/8" (54 mm)

TABLE 2-9

To use the quarter scale, look at the upper blade height indicator. It has two red dots. Loosen the wing nut and angle the indicator until one of the red dots is on the nearest mark of the desired lumber thickness scale.

When you return the carriage for a second cut, you can lower the carriage to the next mark on the lumber thickness scale you chose, without having to measure on the inch scale.

Line up the horizontal red line on the indicator with the nearest mark on the scale you want to use. Make a trim cut. When you return the carriage for a second cut, lower the carriage to the next mark on the scale. This mark shows where the blade should be positioned to cut a certain thickness of lumber, without having to measure on the inch scale.

Example: You want to cut 1" (25 mm) (4/4) random width boards from a log. Position the blade for the first cut. Loosen the wing nut on the left end of the indicator. Move the indicator until one of the red dots is on the nearest 4/4 mark. Adjust the quarter scale so a 4/4 mark is aligned with the red line on the indicator. Make a trim cut. Return the carriage for the second cut. Now, instead of having to measure down 1 1/8" (29 mm) on the inch scale, you can simply lower the blade so the indicator is aligned with the next 4/4 mark on the quarter scale. Turn the log 90 degrees and repeat.

2.16 Water Lube Operation

The Water Lube System keeps the blade clean. Water flows from a 5-gallon (18.9 liter) bottle through a hose to the blade guide where the blade enters the log. A valve in the bottle cap controls the amount of water flow.

See Figure 2-24. Open the valve on the water bottle to start the water flow. A stream of water flows to the blade only when the main motor is turned on.

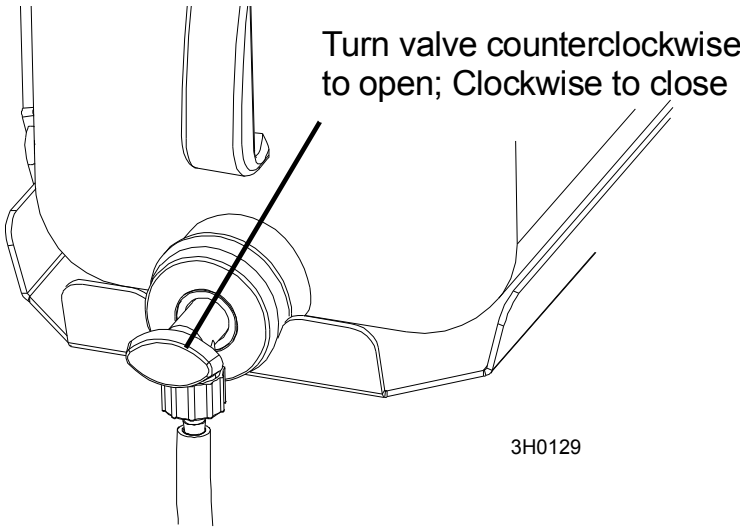


FIG. 2-25

Not all types of wood require the use of the Water Lube System. When it is needed, use just enough water to keep the blade clean. This saves water, and lowers the risk of staining the boards with water. Usual flow will be 1-2 gallons (3.8-7.6 liters) per hour. A squirt of liquid dishwashing detergent in the water bottle will help clean the blade when cutting wood with a high sap content.

WARNING! Use ONLY water with the water lube accessory. Never use flammable fuels or liquids. If these types of liquids are necessary to clean the blade, remove it and clean with a rag. Failure to do so may result in serious injury or death.

Before removing the blade, start the motor with the START button. Let the blade spin with water running on it for about 15 seconds. This will clean the blade of sap buildup. Wipe the blade dry with a rag before storing or sharpening.

If you are sawing in freezing temperatures, remove the water lube bottle from the sawmill when done sawing and store it in a warm place. Blow any remaining water from the water lube hose.

2.17 Preparing The Sawmill For Towing

The Wood-Mizer trailer package makes transporting your sawmill easy and convenient. To get your sawmill ready for towing, follow these instructions.

1. Move the cutting head to the front end of the sawmill. Raise the rear outriggers.
2. Move the cutting head to the travel position over the rear bed rail.
3. Put the distance block on the stop bolt.

   See Figure 2-26.

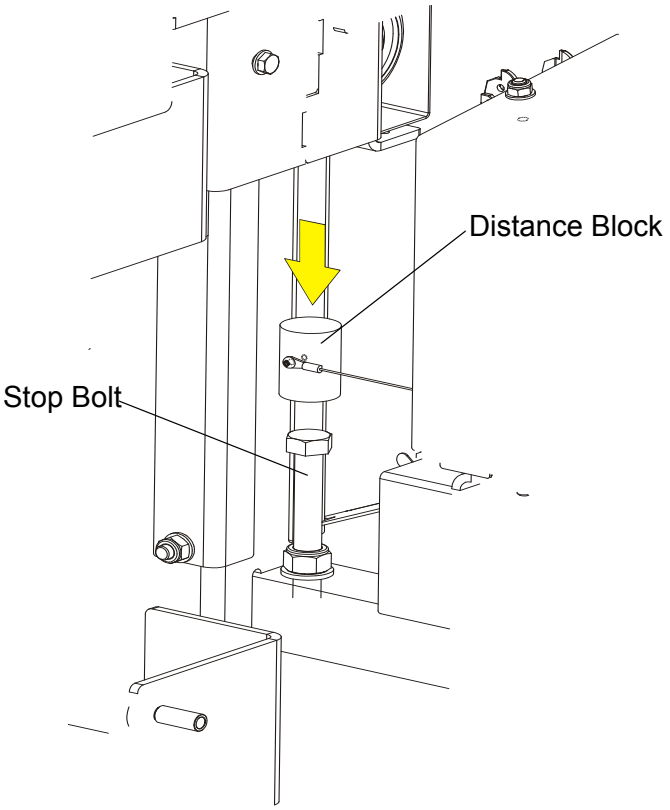


FIG. 2-27

4. Position the hole in the cutting head over the travel rest pin.
5. Lower the cutting head until it is seated firmly on the rest pin.
6. Continue lowering the head 3/4” (19 mm) until it contacts the stop bolt located on the mast.

CAUTION! It is important that the stop bolt is properly adjusted to secure the carriage on the track rail. Failure to properly adjust the stop bolt can cause cutting head damage, especially during mill transportation.

7. Hook the carriage safety chain attached to the main bed tube, behind the trailer to the bracket located near the lower track roller.

8. Manually lift the log loader and secure it with the safety chain.

See Figure 2-28.

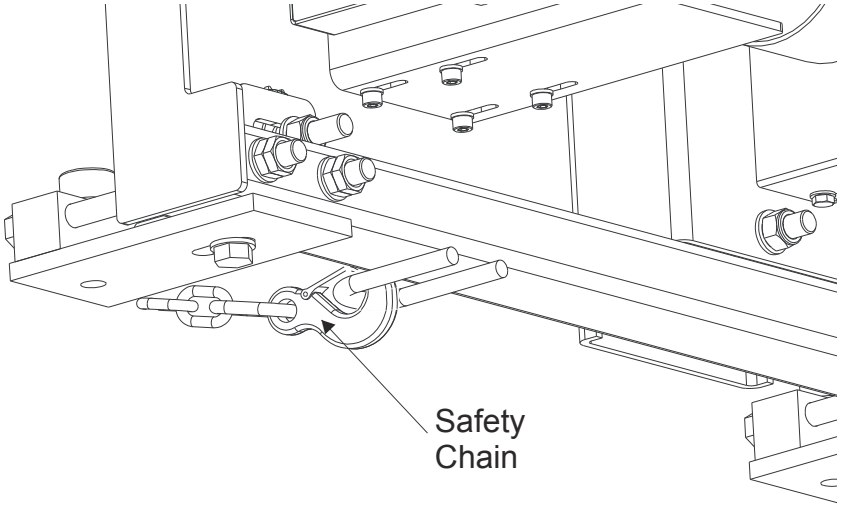


FIG. 2-29

CAUTION! Check to be sure that the carriage safety chain is secured before towing the sawmill. Failure to properly secure the cutting head can result in severe machine damage. Be sure the blade housing cover is in place and secured.

9. Remove all loose objects from the bed of the mill. Store the cranks for toe boards in the brackets provided at the rear of the mill. Store the outrigger jack handle in the bracket on the outrigger guide.

10. Place both fenders in the slots located behind the trailer tires. Raise all but the very front outrigger.

See the trailer operator's manual for specific information regarding hitch operation and towing the sawmill.

SECTION 3 MAINTENANCE

This section lists the maintenance procedures that need to be performed.

The Short Interval Maintenance Schedule lists procedures that need to be performed every 4, 8 or 24 hours. *The Maintenance Log* lists procedures that need to be performed every 50, 100, 200,or 1000 hours. Keep track of machine maintenance by filling in the machine hours and the date you perform each procedure.

This symbol identifies the interval (hours of operation) at which each maintenance procedure should be performed.

Be sure to refer to option and engine manuals for other maintenance procedures.

3.1 Wear Life

See Table 3-1. This chart lists estimated life expectancy of common replacement parts if proper maintenance and operation procedures are followed. Due to the many variables which exist during sawmill operation, actual part life may vary significantly. This information is provided so that you may plan ahead in ordering replacement parts.

Part Description	Estimated Life
B57 Blade Wheel Belts	500 hours
Blade Guide Rollers	1000 hours
Drive Belt	1250 hours

TABLE 3-1

3.2 Blade Guides

1. Check the rollers for performance and wear every blade change. Make sure the rollers are clean and spinning freely. If not, rebuild them. Replace any rollers which have worn smooth or have become cone shaped. See The LT20 Parts manual for blade guide rebuild kits and complete roller assemblies.

   See Figure 3-1.

2. Make sure the blade screw in the top center of the C-frame is 1/16" (1.5 mm) below the bottom of the blade. If not, loosen the nut and adjust the screw as necessary. Failing to maintain this adjustment

will lead to early blade breakage.

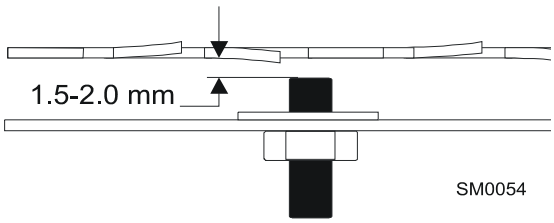


FIG. 3-1

3.3 Sawdust Removal

1. Remove the excess sawdust from the blade wheel housing and sawdust chute every blade change.

3.4 Carriage Track, Wiper & Scrapers

See Figure 3-2.

1. Clean the upper and lower track rails to remove any sawdust and sap buildup every eight hours of operation. Lubricate the lower track rail by wiping it with Dexron III ATF.

8

2. Remove sawdust from the upper cam housings. Loosen the thumb screws on the upper cam housing covers and open. Brush any sawdust buildup from the housings.

8

3. Check the track scrapers as needed. Make sure the scrapers fit firmly against the rail. If a track scraper needs to be adjusted, loosen the thumb screw, push the scraper downward until it fits firmly against the rail, and retighten the thumb screw.

Clean and lubricate the upper track wiper every twenty-five hours of operation. Unbolt the wiper, remove it from the sawmill, and remove any sawdust buildup. Soak the felt wiper with Dexron III transmission fluid, 10W30 motor oil or 3-in-1 turbine oil.

25

CAUTION! Reinstall the track wiper so that it lightly touches the track rail. If the wiper presses too firmly against the rail, it can cause the power feed to bind.

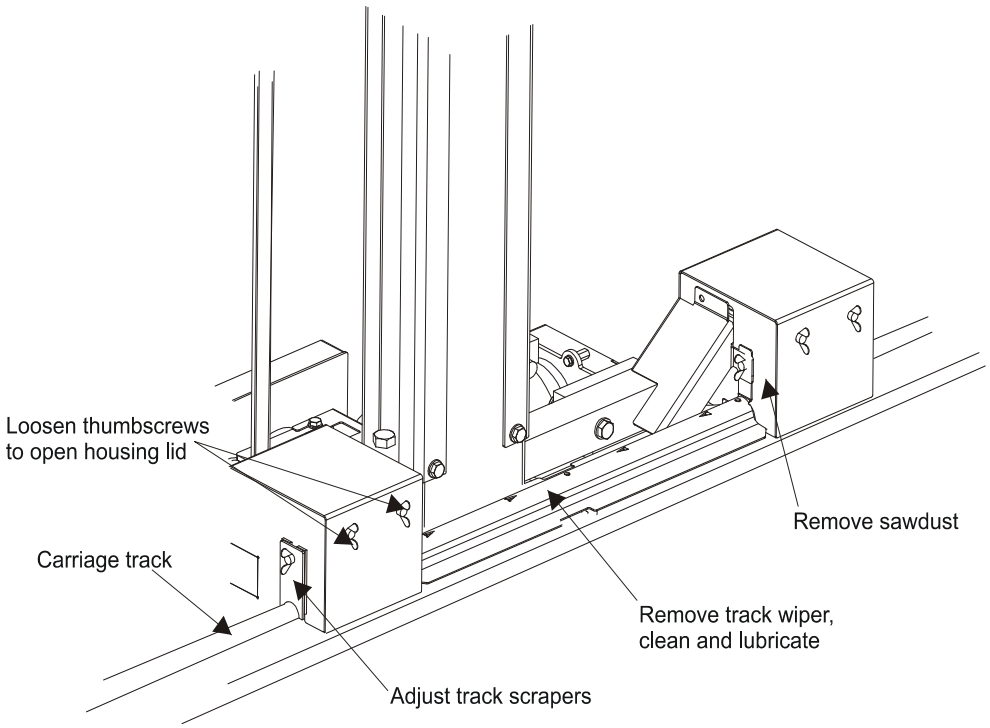


FIG. 3-2

3.5 Vertical Mast Rails

Lubricate the vertical mast rails with WD40, clean and wipe them dry every 50 hours of operation.

50

CAUTION! Never use grease on the mast rails as it will collect sawdust.

3.6 Miscellaneous

50 **1.** Apply a thin film of a lithium grease to the blade guide arm to help prevent it from rusting.

50 **2.** Lubricate the log turner (if equipped) with a lithium grease every fifty hours of operation. Lubricate the turner pivot points (e.g. with WD-40).

50 **3.** Grease the side supports with a lithium grease every 50 hours of operation.

50 **4.** Oil all chains with an easily penetrating oil such as WD-40.

CAUTION! Do not use chain lube. It causes sawdust buildup in chain links.

5. Check the mill alignment every setup. See Section 5, Alignment.

6. Make sure all safety warning decals are readable. Remove sawdust and dirt. Replace any damaged or unreadable decals immediately. Order decals from your Customer Service Representative.

3.7 Blade Tensioner

50 **1.** Grease the tensioner handle screw with a lithium grease every fifty hours of operation, but at least once a week.

See Figure 3-3.

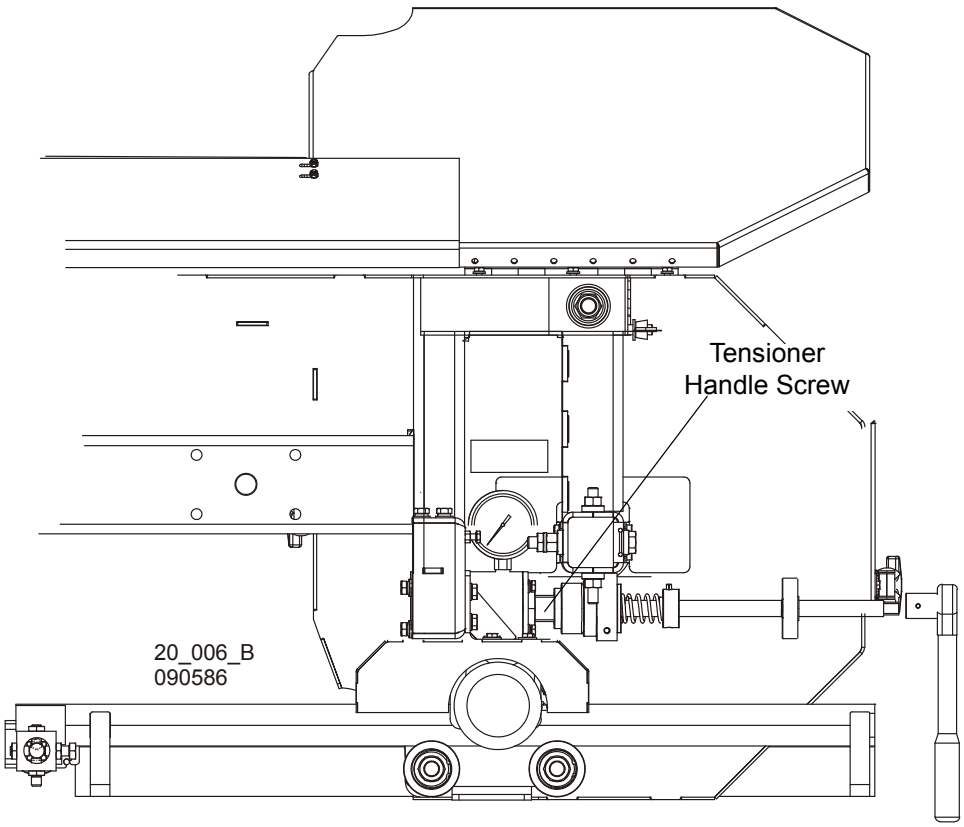


FIG. 3-3

3.8 Blade Wheel Belts

50 **1.** Check the blade wheel belts for wear every 50 hours of operation. Replace as needed.

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

See Figure 3-4.

3.9 Drive Belt Adjustment

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

50 **See Table 3-2.** Check the drive belt tension after the first 20 hours, and every 50 hours thereafter. See the table below for drive belt tension specifications for your sawmill.

Motor/Engine	Belt Tension
E11	7/16” (11mm) deflection with 8 lbs. (3.6 KG) of deflection force

TABLE 3-2

E15, G18, G25, D17, D22	7/16” (11mm) deflection with 16 lbs. (7,2 KG) of deflection force (two belts)

TABLE 3-2

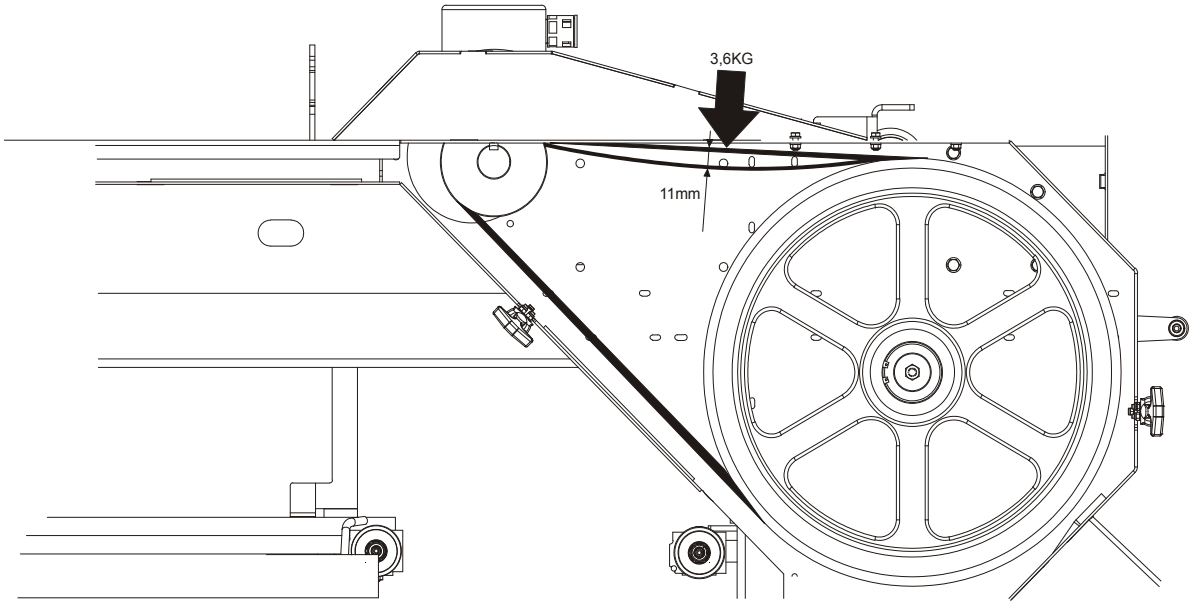


FIG. 3-5

To adjust the drive belt tension:

1. Raise the blade housing cover.

AC Sawmills

2. Loosen the four mounting bolts in the motor mount plate (See the figure below).

3. Loosen mounting bolts and using the adjustment nuts adjust the drive belt(s) tension according to the specifications given in Table 3-2.

4. Tighten the four mounting bolts.

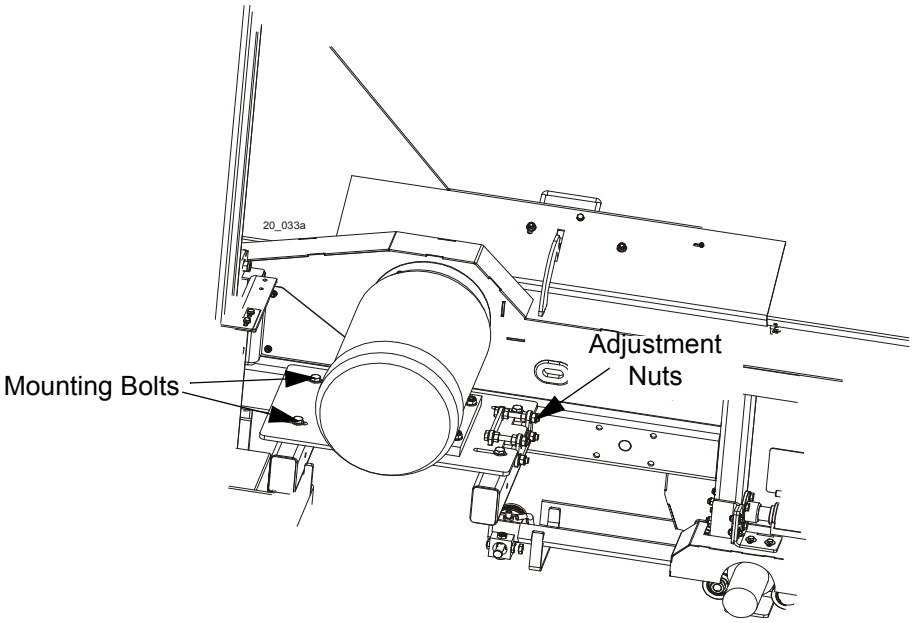
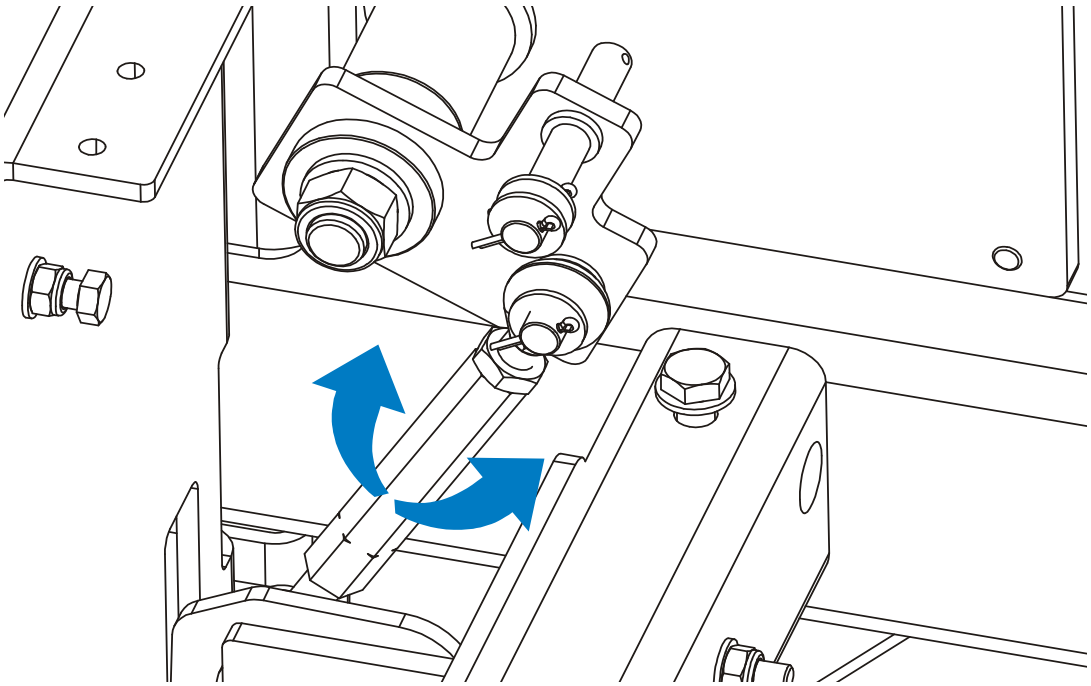


FIG. 3-6

DC Sawmills



To tighten - turn the bolt clockwise; to loosen - turn it counterclockwise.

AR Periodically check the belts for wear. Replace if the belt is damaged or worn.

3.10 Up/Down System

1. Adjust the up/down chain tension as needed. Measure chain tension with the cutting head all the way to the top of the vertical mast. Secure the carriage with a chain at the top, or shim it underneath. Using the adjustment nut shown in Figure 3-7, adjust the chain tension so that there is 1” (2.5 cm) deflection in the center of the chain with a 5 lbs. (2.3 KG) deflection force.

WARNING! Always secure the cutting head with a chain or a brace before adjusting or inspecting the up/down system. The cutting head may fall, causing severe injury or death.

See Figure 3-7. Use the adjustment nut shown below to tension the chain.

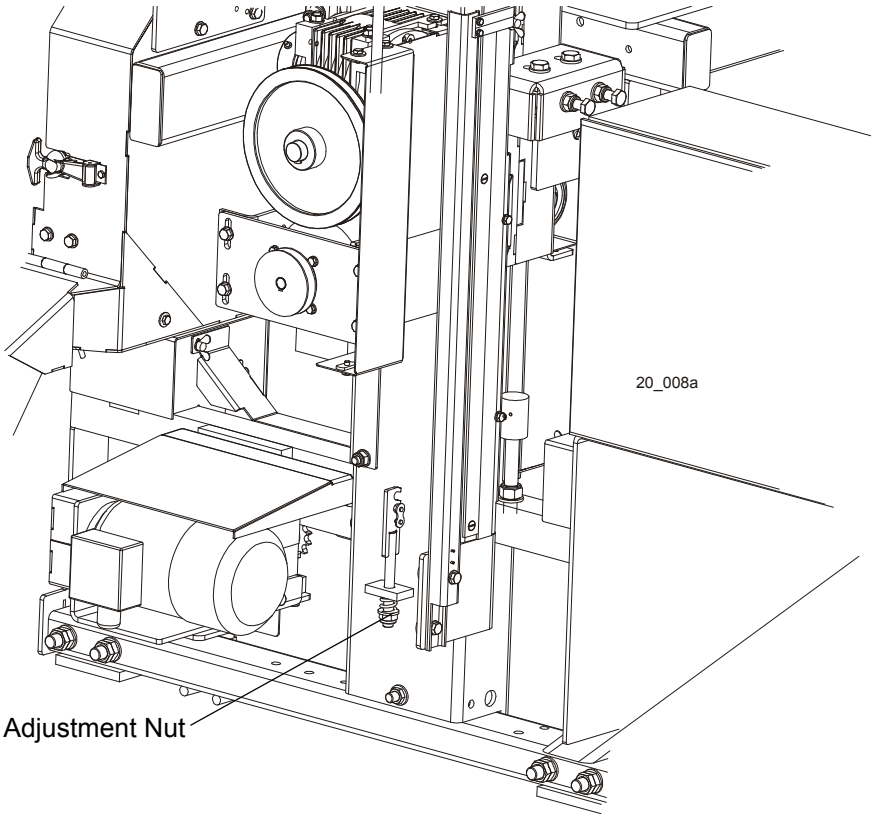


FIG. 3-7

2. Every 500 hours check the up/down chain and chain brackets for wear.

500

WARNING! If you noticed the up/down chain or chain brackets wear, immediately stop the work and contact Wood-Mizer Customer Service. Failure to do so will result in serious injury or death.

3. Adjust the up/down gear belt tension as needed.

WARNING! Before adjusting, always remove the key from the key switch. Failure to do so may result in serious injury.

4. Loosen the four set screws shown below. Adjust the belt tension and tighten the set screws.

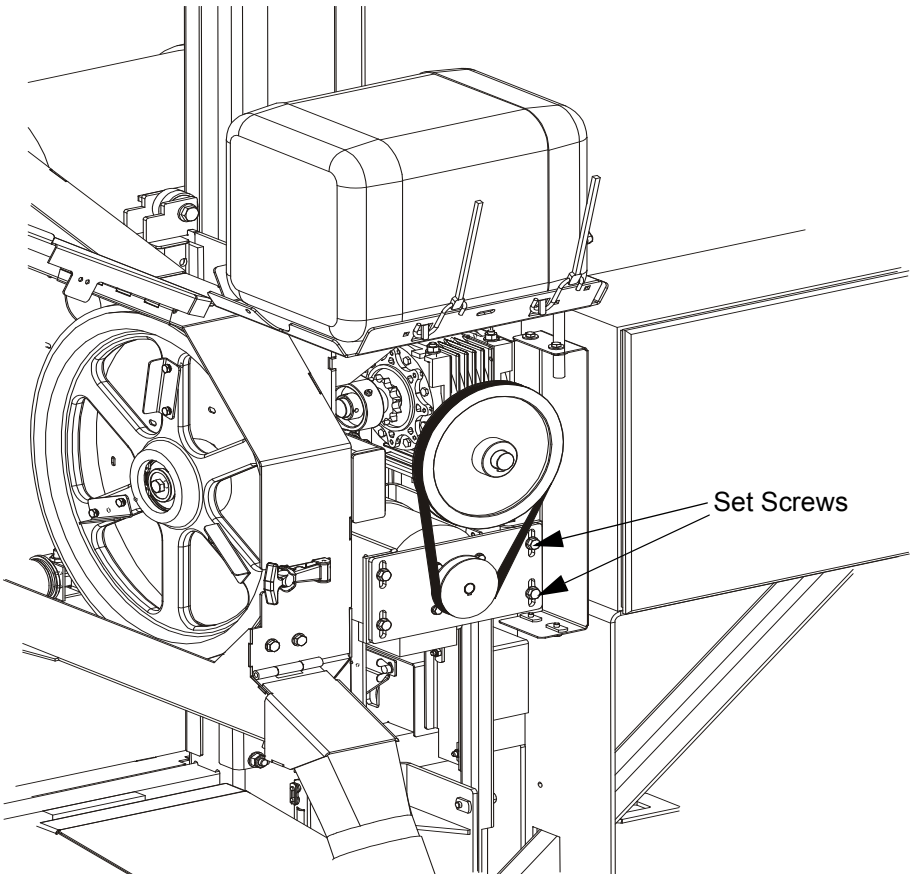


FIG. 3-8

3.11 Power Feed System

1. Adjust the power feed chain as needed.

WARNING! Always remove the key from the key switch before adjusting the chain. Failure to do so may result in serious injury.

See Figure 3-9. Loosen the locking nut. To tighten the chain, turn the adjusting bolt clockwise. To loosen the chain, turn the adjusting bolt counterclockwise. Tighten the locking nut.

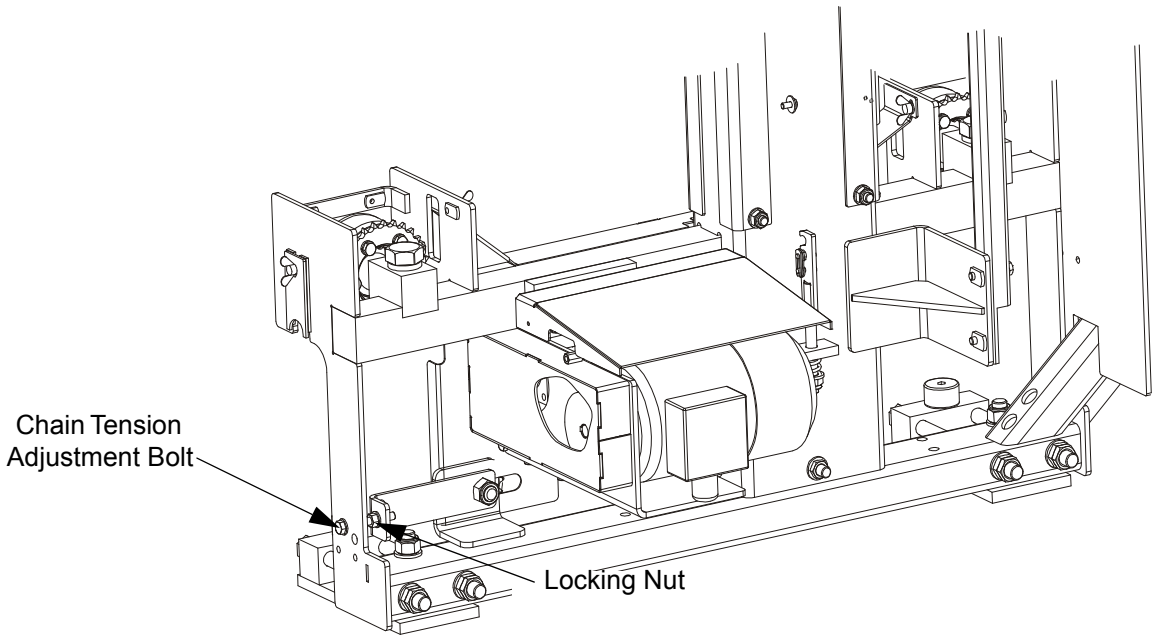


FIG. 3-9

2. If necessary, align the power feed motor pulley with the gear reducer pulley.

WARNING! Remove the key from the key switch before adjusting the pulleys. Failure to do so may result in serious injury.

See Figure 3-10. Keep the pulleys aligned to avoid premature V-belt and pulleys wear.

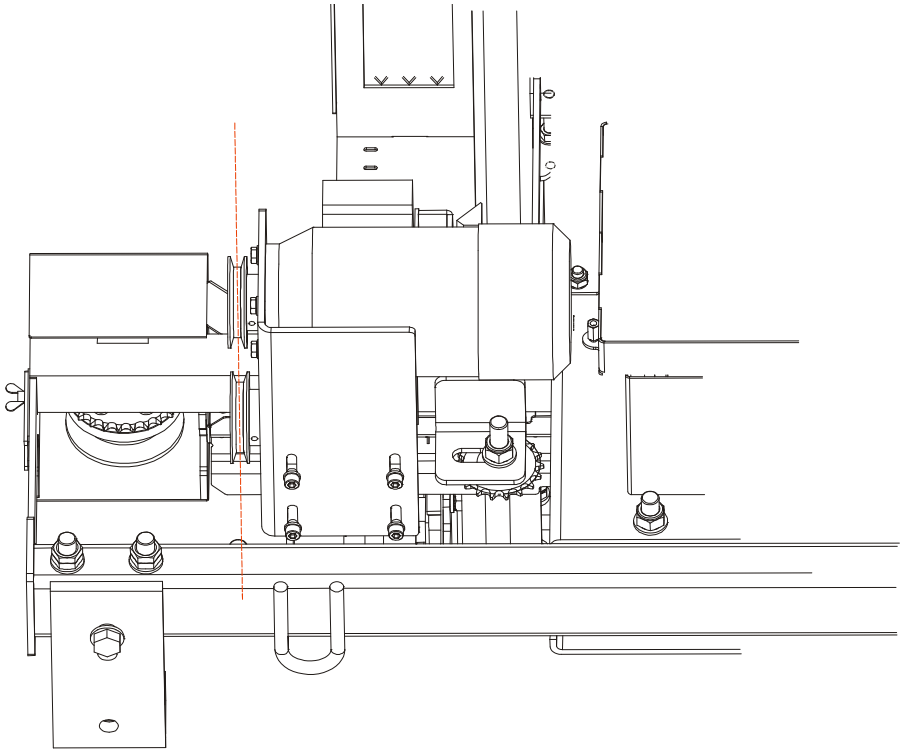


FIG. 3-10

To align the pulleys, slide one of them on the shaft appropriately.

3. Adjust the power feed gear belt tension as needed.

WARNING! Remove the key from the key switch before adjusting the belt tension. Failure to do so may result in serious injury.

See Figure 3-11. Loosen the adjustment bolts shown below. Adjust the belt tension and tighten the adjustment bolts.

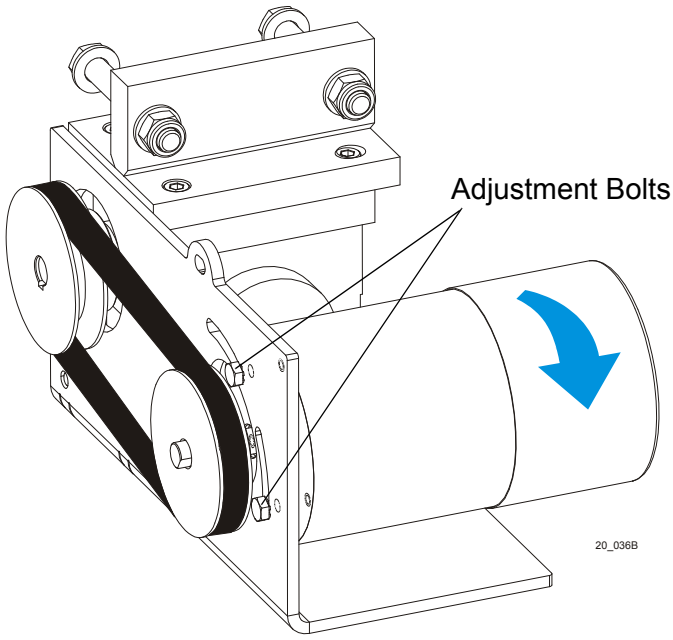


FIG. 3-11

4. If the power feed chain must be replaced, route a new chain as shown on the picture below.

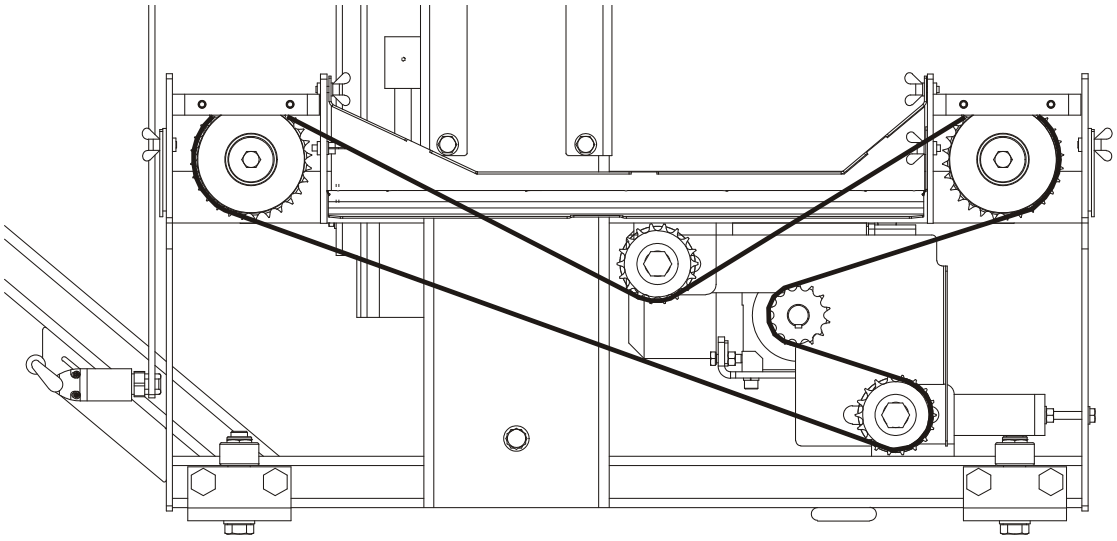


FIG. 3-11

3.12 Safety Devices Inspection

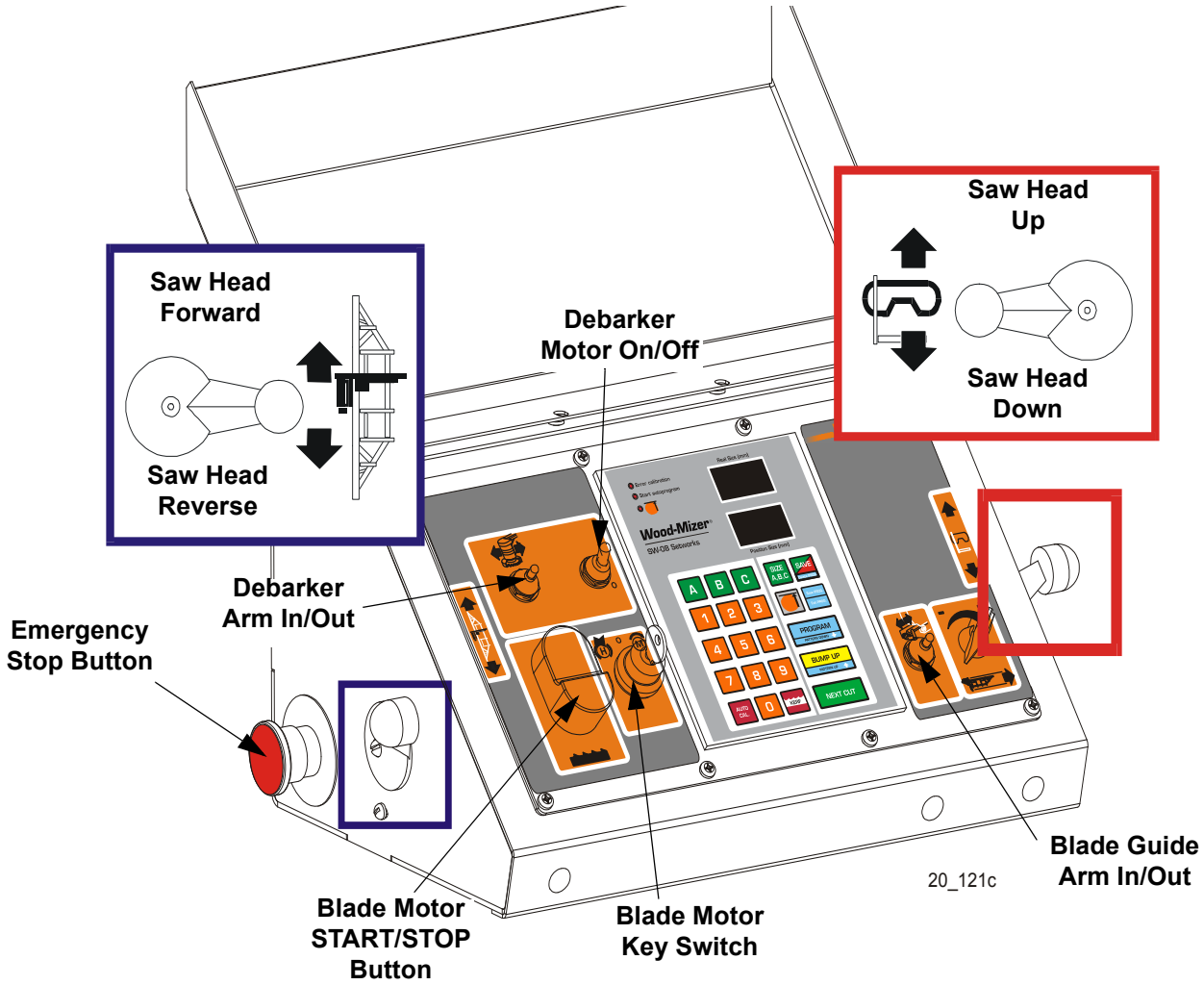
LT20 AC – Safety devices inspection

Safety devices on the LT20AC machine which must be checked before every shift:

- E-STOP button and its circuit inspection
- Inspection of the control circuits with the E-STOP button pressed
- Blade cover safety switches and its circuit inspection
- Motor brake and its circuit inspection

1. E-STOP button and its circuit inspection

- Turn on the blade motor;
- Press the E-STOP button located on the left side of the control box. Blade motor should be stopped. Pressing the START button shouldn't start the motor until the E-STOP button is released.



2. Inspection of the control circuits with the E-STOP button pressed

- Turn on the blade motor;
- Press the E-STOP button located on the left side of the control box. Blade motor should be stopped.
- With E-STOP button pressed try to move the saw head up and down (using switch and setwork buttons) and forward/backward using power feed switch. Both systems shouldn't start.
- With E-STOP button pressed try to start the debarker blade motor and move the debarker arm in and out. Debarker shoudn't work.
- With E-STOP button pressed try to move the blade guide arm in and out. Blade guide arm shoudn't work.

3. Blade cover safety switch and its circuits inspection

- Turn on the blade motor;
- Open blade housing cover;
- Blade motor should be stopped;
- Try to start the motor. The blade motor should remain stopped;
- Close blade housing cover;
- Blade motor should remain stopped until re-started using START button.

4. Motor brake and its circuit inspection

- Turn on the blade motor. Stop the motor using STOP button. Measure the braking time.
- Turn on the blade motor. Stop the motor by switching the key to "0" position. Measure the braking time.
- Turn on the blade motor. Stop the motor by switching the key to "H" position. Measure the braking time.
- Braking time should always be shorter then 10 seconds. If the braking time is longer it is neccesary to adjust or replace motor disc brake. See your motor option manual.

WOOD-MIZER LT20 SERIES SAWMILL
SHORT INTERVAL MAINTENANCE SCHEDULE
(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE
EVERY BLADE CHANGE	
Check Blade Guide Rollers.	**PATRZ ROZDZIA³ 3.2SEE SECTION 3.3**
Remove Sawdust From Blade Wheel Housings And Sawdust Chute.	**PATRZ ROZDZIA³ 3.3SEE SECTION 3.3**
Check Middle Throat Screw.	**PATRZ ROZDZIA³ 3.2SEE SECTION 3.2**
EVERY 8 HOURS	
Clean Track Rails. Lubricate Lower Track Rail.	**PATRZ ROZDZIA³ 3.4SEE SECTION 3.4**
Remove Sawdust From Upper Cam Housings.	**PATRZ ROZDZIA³ 3.4SEE SECTION 3.4**
Remove Sawdust And Debris From Around Loader Velocity Fuse Valves, From Battery Box Lid And Middle Track Cover (LT20HD).	
EVERY 25 HOURS	

Clean And Lubricate Wiper On Upper Track Rail.	**PATRZ ROZDZIA³ 3.4SEE SECTION 3.4**

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		50 HRS	100 HRS	150 HRS	200 HRS	25O HRS	300 HRS	350 HRS	400 HRS	450 HRS	500 HRS
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section 3.9										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		550 HRS	600 HRS	650 HRS	700 HRS	75O HRS	800 HRS	850 HRS	900 HRS	950 HRS	1000 HRS
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		1050 HRS	**1100 HRS**	**1150 HRS**	**1200 HRS**	**1250 HRS**	**1300 HRS**	**1350 HRS**	**1400 HRS**	**1450 HRS**	**1500 HRS**
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		1550 HRS	1600 HRS	1650 HRS	1700 HRS	1750 HRS	1800 HRS	1850 HRS	1900 HRS	1950 HRS	2000 HRS
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		2050 HRS	2100 HRS	2150 HRS	2200 HRS	2250 HRS	2300 HRS	2350 HRS	2400 HRS	2450 HRS	2500 HRS
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

WOOD-MIZER LT20 SERIES MAINTENANCE LOG

(Check motor/engine and option manuals for additional maintenance procedures)

PROCEDURE	MANUAL REFERENCE	TOTAL HOURS OF OPERATION *FILL IN THE DATE AND THE MACHINE HOURS AS YOU PERFORM EACH PROCEDURE.* *A SHADED BOX INDICATES MAINTENANCE IS NOT NEEDED AT THIS TIME.*									
		2550 HRS	2600 HRS	2650 HRS	2700 HRS	2750 HRS	2800 HRS	2850 HRS	2900 HRS	2950 HRS	3000 HRS
Clean And Lubricate Vertical Mast Rails.	See Section 3.5										
Lubricate Pivot Points/Chains.	See Section 3.6										
Check Tensions Of Belts.	See Section 3.10										
Check Blade Wheel Belts For Wear.	See Section 3.8 See Section										
Check Tensions Of Up/Down And Power Feed Chains.	See Section 3.10										
Lubricate Blade Tensioner Handle And Rods.	See Section 3.7										

SECTION 4 TROUBLESHOOTING GUIDE

4.1 Sawing Problems

PROBLEM	*CAUSE*	*SOLUTION*
Blades Dull Quickly	Dirty logs	Clean or debark logs, especially on entry side of the cut
	When grinding teeth, heating too much and causing teeth to soften	Grind just enough metal to restore sharpness to the teeth. Use water/coolant while sharpening blade
	Poor sharpening techniques	Make sure the tip is being sharpened completely (See Sharpener Manual)
Blades Break Prematurely	Rubber belts on blade wheels worn to a point that blade contacts metal pulley - look for shiny spots on edge of wheels	Change blade wheel belts (B-57)
	Poor sharpening techniques	See Sharpener Manual
	Tension too tight	Tension blade to recommended specifications
Blade Does Not Track Right on Drive Wheel	Cant adjustment is incorrect	Readjust
	Flat/worn belts	Replace B-57 belts
Blade Guides Do Not Spin While Cutting	Frozen bearings	Replace bearings
	Stiff bearings	Grease bearings
Blade Does Not Stop Immediately After Disengaging	Brake strap too loose	Adjust brake strap
Drive Belts Come Off Pulleys When Disengaging Blade	Brake strap too loose	Adjust brake strap
	Brake drum misaligned	Realign on drive shaft
	Brake strap tightened with one edge too loose and one edge too tight	Adjust brake strap
Drive Belts Wear Prematurely or Jump	Engine/motor and drive pulleys out of alignment	Align pulleys. *See Section 4.5 Engine/Motor and Drive Pulleys Alignment.*

PROBLEM	*CAUSE*	*SOLUTION*
Boards Thick Or Thin On Ends Or Middle Of Board.	Stress in log which causes log to not lay flat on the bed.	After log has been squared, take equal cuts off opposing sides. Take a board off the top. Turn the log 180 degrees. Make a cut. Repeat, keeping the heart in the middle of the cant, and making it your last cut.
	Set in teeth.	Resharpen and reset blade.
	Bed rails misaligned.	Realign sawmill.
Height Adjustment Jumps or Stutters When Moving Up or Down.	Mast needs lubrication.	Lubricate mast track surface.
	Up/down chain improperly adjusted.	Adjust up/down chain.
	Vertical wear pads are too tight.	Adjust pads.
	Drive belt(s) loose.	Adjust belts.
Lumber Is Not Square	Vertical side supports not square to bed	Adjust side supports.
	Blade not parallel to bed rails	Adjust bed rails parallel to blade.
	Sawdust or bark between cant and bed rails	Remove particles
	Tooth set problems	Resharpen and reset blade
Sawdust Builds Up On Track	Excessive oiling	Do not oil track
	Track wipers worn	Adjust wipers to firmly contact track
	Track is sticky	Clean track with solvent and apply silicone spray
Wavy Cuts	Excessive feed	Slow feed rate
	Improperly sharpened blade (This will be the problem 99% of the time!)	Resharpen blade (See Sharpener Manual - read entire manual!)
	Blade guides improperly adjusted	Adjust blade guides.
	Sap buildup on blade	Use Water Lube.
	Tooth set problem	Resharpen and reset blade

4.2 Electrical Problems

PROBLEM	*CAUSE*	*SOLUTION*
Up/down Excessively Slow.	Vertical wear pads too tight.	Adjust pads.
	Up/down belt loose.	Adjust belt to be as loose as possible without slipping
Up/down Or Power Feed Motors Do Not Work.	Worn/dirty contacts in drum switch.	Replace switch or remove control panel cover and clean contacts.
	Bad key switch.	Replace key switch.
	Circuit breaker.	
	Burned-out motor.	Replace motor.
	Bad connection on battery post or loose wire.	Check for loose wire or terminal connections.
	Up/down motor relay damaged.	Have a qualified electrician replace the relay.
	Up/down motor is damaged.	Have a qualified electrician replace the up/down motor.
	One phase lacks.	Check circuit breakers in the connectors.
	Motor thermal protector started to work.	Let the motor cool abd then reset the thermal protector.
	Speed switch circuit overloaded.	Turn off the power bad let the motor cool. Turn the power back on.
	Power feed is overheated.	Turn off the power abd let the motor cool. Turn the power back on.
	Short circuit in speed switch motor system.	Have a qualified electrician remove the short circuit.
Up/Down Or Power Feed Switches Remain Engaged When Switch Is Released.	Worn or dirty contacts in drum switch.	Manually move the power feed or up/down switch back to neutral or "off" position. Replace drum switch or remove control panel cover and clean and lubricate contacts NOTE: Use only contact grease supplied by Wood-Mizer.
	Drum switch spring broken.	Manually move the power feed or up/down switch back to neutral or "off" position. Replace drum switch spring.
Up/Down Or Power Feed Motors Overheat And Loose Power.	System overload or bind occurred.	Correct problem. *See Section 4.3 Power Feed Problems.* Allow motor to cool before restarting.
	Normal operation factors exceeded (eg: up/down control jockeyed excessively).	Allow motor to cool before restarting.
Everything Works And Then Cuts Out - Works Again.	Bad fuse, or ground connection.	Check and tighten connections.
Nothing Works Electrically.	Blown fuse.	Replace.

4.3 Power Feed Problems

PROBLEM	*CAUSE*	*SOLUTION*
Power Feed Is Jerky At Low Speeds Or Does Not Move Until Speed Is Above Halfway Mark.	Drum switch is dirty.	Clean drum switch and lubricate with contact grease supplied by Wood-Mizer.
	Drum switch contacts are bad	Check that contacts are in good condition and positively close circuit.
	Speed switch is worn.	Replace the speed switch.
	Speed switch is blocked.	Turn off the power for 20 seconds and turn it back on.
Power Feed Is Jerky, But Power Feed Motor Runs Properly At All Speeds.	Problem is mechanical.	Refer to the Mechanical Test.

PROBLEM	*CAUSE*	*SOLUTION*
Power Feed Motor Overheats.	Middle track oiler is dragging.	Clean middle track oiler and lubricate with 30-weight oil or ATF (Automatic Transmission Fluid) such as Dexron II. Allow motor to cool before restarting.
	Ground is not level.	Level mill with carpenter's level. Allow motor to cool before restarting.
	Track roller bearing drag is excessive.	Lubricate bearings; Replace tight bearings. Allow motor to cool before restarting.
	Lower track rollers are not aligned properly.	Check stop block clearance from lower bed rail. Allow motor to cool before restarting.
	Chain is dragging.	Make sure chain is centered on cam follower bearing; Clean and lubricate chain; Adjust chain tension. Allow motor to cool before restarting.
	Chain is improperly tensioned.	Adjust chain tension. Allow motor to cool before restarting.
	Seat load is excessive.	Check seat bearings for freedom of movement; Loosen clamping screw 1/4 turn. Allow motor to cool before restarting.
	Power feed is binding.	Adjust belt tension; Check condition of belt, pulleys, bearings, and sprocket; Check motor for ground fault. Allow motor to cool before restarting.
	Saw head load is excessive.	Avoid unnecessary modifications to saw heads that would give them extra weight. Allow motor to cool before restarting.
	Blade is dull or improperly set.	Use proper blade maintenance procedures (See Sharpener or Toothsetter manual). Allow motor to cool before restarting

4.4 Hydraulic Problems

PROBLEM	*CAUSE*	*SOLUTION*
You Can Actuate Any Hydraulic Handle, But Get No Response From The Pump.	Carriage not positioned properly to provide power to the pump	Make sure carriage contact bracket is adjusted far enough forward for battery positive contact to touch 6ft. strip on main tube. Check contact and strip for tarnish or loose wires. Clean as necessary
	Hydraulic feeder does not work	Turn on the power switch on the front side of the electric box mounted on the front side of the hydraulic box. Check whether the power is on (in position “1”)
		Check whether the key switch is in ACC position
		Disconnect the plug on the left side of the electric box and change the phases using a screwdriver
		Check whether the emergency switch is off
	One phase lacks power	Check fuses in the electric connector
	Pump motor relay damaged	Have a qualified electrician change it
	Hydraulic pump motor is overheated	Let the motor cool. When the motor is off, reset the thermal motor breaker located in the electric box mounted in the hydraulic box
	The hydraulic feeder works despite the release of the hydraulic control lever	**Standard situation.** Hydraulic feeder assembly should keep working for 5-8 seconds after the hydraulic lever is released (in the neutral position)
	Poor ground connection	Check ground connection between pump and saw frame. Check contact and rail for tarnish or loose wires. Clean as necessary
	Blown fuse	Replace
	Defective pump motor	Remove motor from pump and inspect. Repair or replace as necessary
You Can Get Response From the Pump By Actuating All But One or Two Handles	Valve assembly switch contacts are not properly adjusted	Locate the valve switch at the bottom of the valve assembly. Use a 3MM allen wrench to loosen the set screw on each of the five switch contacts. Press each contact to the valve block and tighten the contact set screw to secure in place. **CAUTION!** Do not overtighten! **NOTE:** Do not adjust the valve switch or switch spring; they have been preset at the factory.

PROBLEM	*CAUSE*	*SOLUTION*
Pump Motor Runs With Little Or No Response From The Cylinders	Low fluid level	Check fluid level. Add an all-season hydraulic fluid such as Amoco Rycon Oil MV or Mobil Multipurpose ATF (automatic transmission fluid) until level is 4 - 4 1/2" from bottom of reservoir with all cylinders retracted
	Pressure relief valve moved from proper setting	Adjust pressure relief valve.
	Low air temperature causing fluid to thicken	Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions (Mobil SHC 526)
Fluid Leaks From Around Cylinder Piston Ram	Worn seals	Replace seals in cylinder. Check piston ram for abrasive weld that may be causing premature seal failure
Fluid Leak Around Pump Box	Loose seal or fitting	Wipe pump off completely to locate cause of lead. You may have to unbolt the pump to wipe behind it. **NOTE:** Movement of the sawmill can cause fluid to slosh up into the foam filter in the reservoir cap, and subsequently spray out, giving the appearance that fluid is leaking from the pump

PROBLEM	*CAUSE*	*SOLUTION*
Hydraulic Side Supports Go Down Before Or At Same Time As Log Turner	Dirt in sequence valve	Remove sequence valves and clean thoroughly with kerosene. **NOTE:** Be sure to reassemble the valve and install it in its original position on the cylinder
	Retainer in sequence valve worn	Replace sequence valve
	Low air temperature causing fluid to thicken	Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions (Mobil SHC 526)
Hydraulic Turner Goes Up Before Or At Same Time As Side Supports	Spring weakening in sequence valve	Locate sequence valve at top of turner cylinder. Turn heavy spring in about 1/4 turn
	Dirt in sequence valve	Remove sequence valves and clean thoroughly with kerosene. **NOTE:** Be sure to reassemble the valve and install it in its original position on the cylinder
	Retainer in sequence valve worn	Replace sequence valve
	Low air temperature causing fluid to thicken	Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions. (Mobil SHC 526)
	Springs weakening in sequence valve.	Locate sequence valve at bottom of turner cylinder. Turn heavy spring in about 1/4 turn

4.5 Engine/Motor and Drive Pulleys Alignment

1. Install the drive belt.

2. Use a straight edge to align the engine/motor pulley to the drive pulley. Also check that the engine pulley is within 1/8" square with the drive pulley. Loosen the engine mounting bolts and rotate the engine if necessary.

3. Check front-to-back movement of the engine does not exceed 6,5 mm 1/4". Tighten the motor mount U-bolts if necessary.

4. Adjust the drive belt tension to11mm deflection with 7,2 kg. of force.

5. Recheck the pulley alignment and engine squareness with the clutch handle engaged. Adjust if necessary.

6. Adjust the drive belt support to 6mm from the belt while engaged.

SECŢIUNE 5 ALINIAMENTUL GATERULUI

5.1 Proceduri premergătoare

Gaterul Wood-Mizer este aliniat din fabricaţie. Această secţiune include instrucţiuni despre modul de re-aliniere completă a gaterului. Fiţi riguros când efectuaţi fiecare pas al procedurii de aliniere, deoarece alinierea gaterului determină precizia tăieturilor dumneavoastră. Procedura de aliniere va fi efectuată o dată la aproximativ 1500 de ore de operare (chiar mai devreme în cazul în care transportaţi în mod regulat gaterul pe teren accidentat).

Procedura de rutină:

1. Instalaţi şi aşezaţi pânza (*See Section 5.3*).
2. Verificaţi unghiul pânzei cu şinele patului şi ajustaţi rolele şinei inferioare dacă este necesar (*See Section 5.18*).
3. Verificaţi şi ajustaţi aliniamentul vertical al braţului de ghidare a pânzei (*See Section 5.7*).
4. Verificaţi şi ajustaţi aliniamentul orizontal al braţului de ghidare a pânzei (*See Section 5.10*).
5. Verificaţi şi ajustaţi unghiul vertical al ghidajelor pânzei (*See Section 5.13*).
6. Verificaţi şi ajustaţi unghiul orizontal al ghidajelor pânzei (*See Section 5.15*).
7. Verificaţi şi ajustaţi spaţierea între flanşa ghidajului pânzei şi partea din spate a pânzei (*See Section 5.14*).
8. Verificaţi şi ajustaţi unghiul orizontal al suporturilor laterale (*See Section 5.16*).
9. Verificaţi şi ajustaţi unghiul vertical al suporturilor laterale (*See Section 5.17*).
10. Verificaţi ca scara de înălţime a pânzei să afişeze cu acurateţe distanţa reală de la baza pânzei la şinele patului şi ajustaţi dacă este necesar (*See Section 5.19*).

Procedura completă:

Urmaţi toate etapele din cadrul acestei secţiuni pentru a re-alinia complet gaterul.

5.2 Instalarea cadrului

Gaterele staţionare terbuie să fie instalate pe o suprafaţă fermă, uniformă înainte de a trece la aliniament.

Gaterele portabile trebuie să fie instalate de asemenea pe o suprafaţă fermă, uniformă .

: Ajustaţi cele două console de reazem mediane pe ţeava principală a cadrului, suficient de jos pentru a ridica greutatea de pe pneurile remorcii.

: Ajustaţi cele douăconsole de reazem de la ţeava principală a cadrului, suficient de jos pentru a ridica greutatea de pe pneurile remorcii.

Toate gaterele portabile: Ajustaţi cele două console de reazem exterioare suficient de jos pentru a atinge solul dar fără să susţină greutate.

5.3 Instalarea şi aliniamentul pânzei

Vezi figura 5-1. Instalaţi o pânză şi aplicaţi tensiunea corespunzătoare. Tensiunea pânzei se ajustează cu mânerul de tensionare prezentat mai jos.

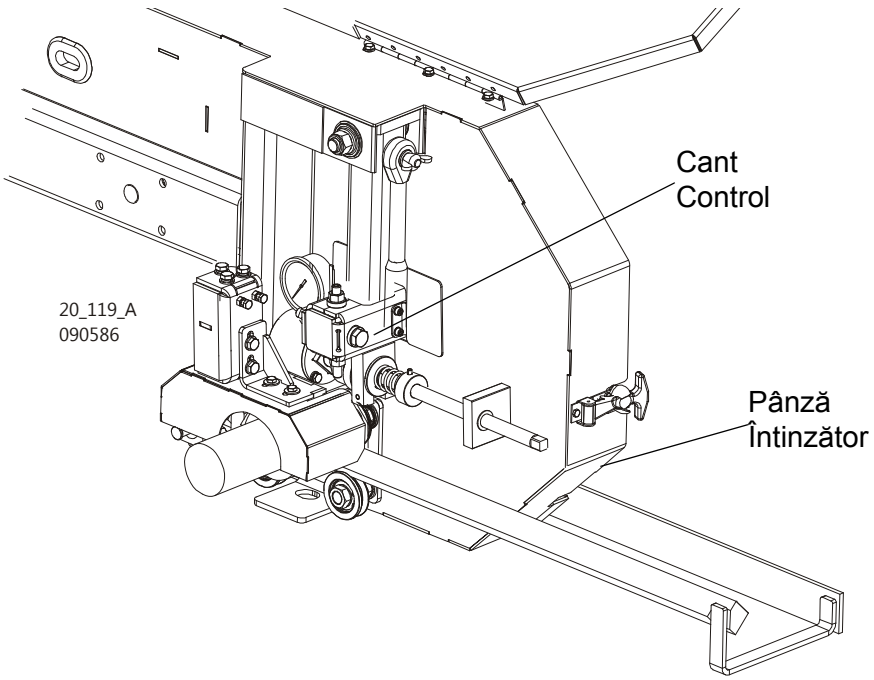


FIG. 5-1

Gatere electrice:

1. Răsuciţi cheia de contact pe poziţia „H”.

H

2. Deschideţi capacul carcasei pânzei.

3. Rotiţi manual una dintre roţile pânzei până când pânza se poziţionează pe roţile pânzei.

Gatere pe gaz:

1. Răsuciţi cheia de contact pe poziţia „0” şi scoateţi cheia.

2. Deschideţi capacul carcasei pânzei.

3. Eliberaţi ştiftul de blocare. Pentru aceasta trebuie să îl trageţi în afară şi să rotiţi.

4. Împingeţi uşor în sus mânerul ambreiajului astfel ca ştiftul de blocare să cadă în orificiu. În această poziţie a mânerului, frâna pânzei este eliberată şi cureaua de transmisie este detensionată.

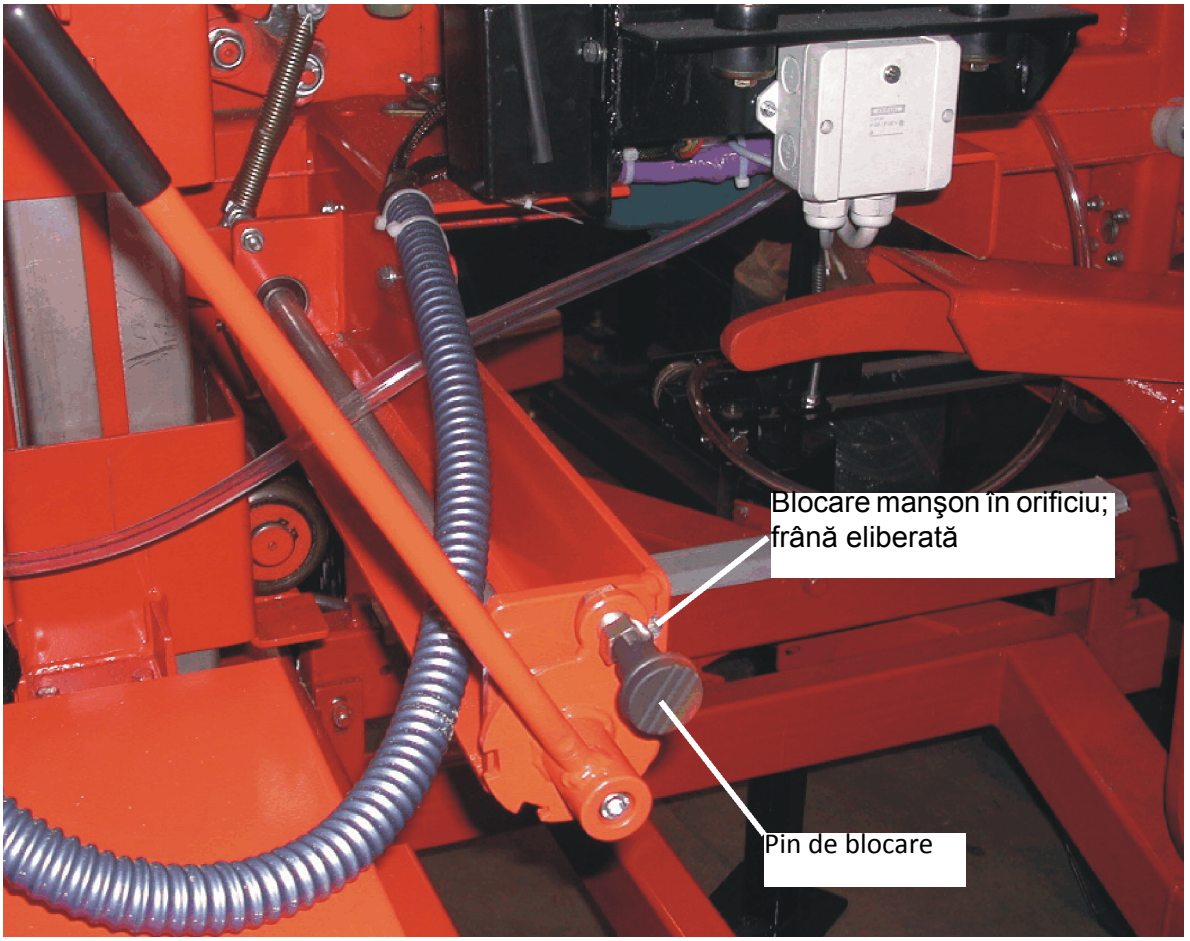


FIG. 5-1

5. Rotiţi manual una dintre roţile pânzei până când pânza se poziţionează pe roţile pânzei.

Verificaţi aliniamentul vertical a roţii pânzei de pe latura inactivă. Nişa pânzei trebuie să se afle la aceeaşi distanţă de la marginea frontală a roţii din partea superioară şi inferioară a roţii. Dacă nu este aşa, slăbiţi şi strângeţi şuruburile de ajustare adecvate la arborele roţii.

Vezi figura 5-2. Roţile pânzei trebuie reglate până când nişa de 1 1/4" a pânzelor se ridică la 3.0 mm (0.12") în afara marginii frontale a roţilor (± 1.0 mm [0.04"]). Nişa pânzelor de 1 1/2" trebuie să ruleze

la 4.5 mm (0,18") în afara marginii frontale a roţilor (±1mm [0,04"]). Nu permiteţi încălecarea dinţilor pe curea.

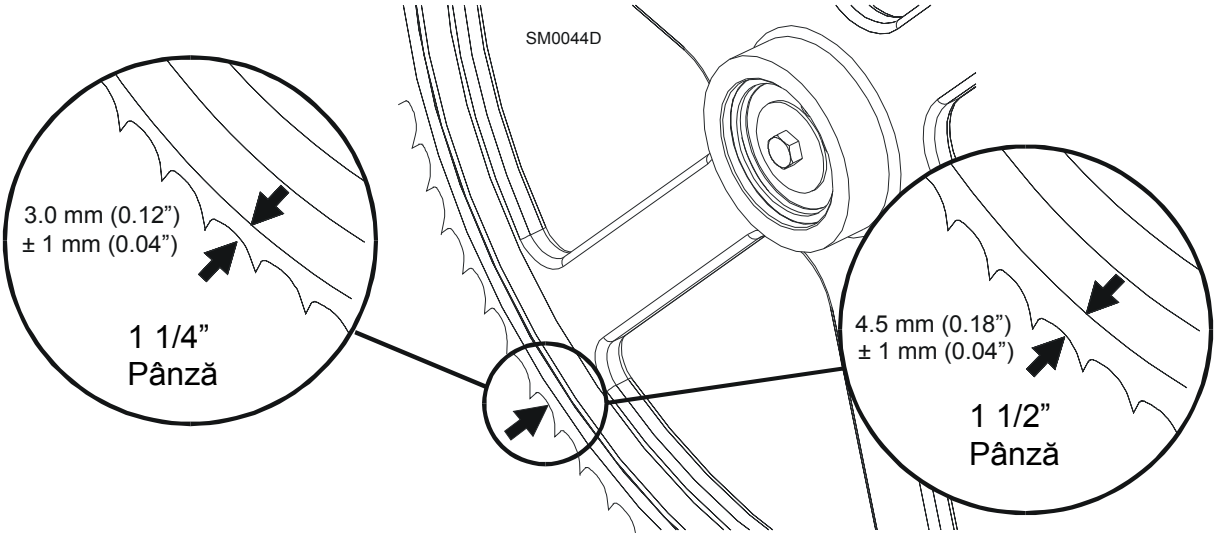


FIG. 5-2

Pentru a ajusta traseul pânzei pe roţi pe partea inactivă, utilizaţi şurubul sistemului de control al cantului prezentat în **Figura5-1**.

Pentru a muta pânza în afară pe roata pânzei, răsuciţi şurubul de reglaj al cantului în sensul acelor de ceas. Pentru a muta pânza înăuntru pe roata pânzei, răsuciţi şurubul de reglaj al cantului în sensul invers acelor de ceas.

Este posibil să fie necesare anumite ajustări ale tensiunii pânzei pentru a compensa pentru reglările efectuate la nivelul sistemului de control al cantului.

Ajustarea cu ajutorul sistemului de control al cantului este în mod normal suficientă pentru a aşeza pânza corect pe roţi, pe ambele părţi. Roata pânzei din partea activă nu necesită de obicei ajustări. Dacă este necesar, roata de pe latura activă poate fi ajustată după cum urmează:

Localizaţi piuliţele şi şuruburile de prindere aflate pe partea activă a capului de tăiere. Dacă pânza este prea mult în faţă pe roată, răsuciţi şurubul aflat pe interiorul capului în sensul invers acelor de ceas şi răsuciţi şurubul aflat pe partea exterioară a capului în sensul acelor de ceas. Asiguraţi-vă că aţi strâns piuliţele în carcasa arborelui când ajustarea este completă.

5.4 Aliniament roată pânză

Roţile pânzei trebuie să fie ajustate în aşa fel încât să fie uniforme în plan vertical şi orizontal. Dacă roţile pânzei sunt înclinate pe verticală sau orizontală, pânza va avea tendinţa de a rula pe direcţia înlinaţiei. Dacă roţile pânzei sunt înclinate pe orizontală, pânza nu va efectua cursa în poziţie corectă pe roţi.

1. Utilizaţi instrumentul de aliniere a ghidajului pânzei pentru a verifica aliniamentul pe verticală al fiecărei roţi a pânzei. Ataşaţi instrumentul la pânză, lângă sistemul de montare interior al ghidajului pânzei. Asiguraţi-vă că instrumentul nu se sprijină pe un dinte sau margine crestată şi că stă plat pe baza pânzei.

   Vezi figura 5-3.

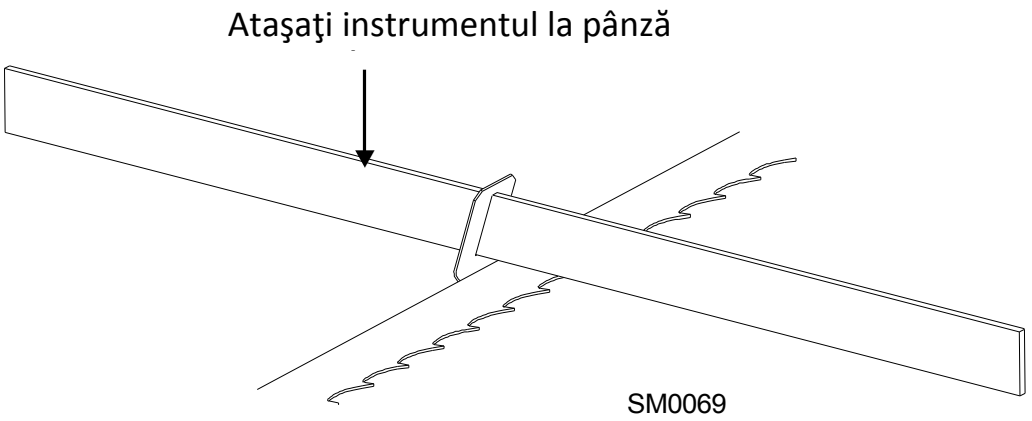


FIG. 5-3

2. Mutaţi capul de tăiere astfel încât capătul frontal al instrumentului să fie poziţionat deasupra primei şine a patului. Măsuraţi de la baza instrumentului la suprafaţa superioară a a şinei patului.

3. Mutaţi capul de tăiere astfel încât capătul din spate al instrumentului să fie poziţionat deasupra şinei patului. Măsuraţi acum din nou de la baza instrumentului la şina patului.

4. Dacă cele două măsurători diferă cu mai mult de 1/16” (1,5 mm), ajustaţi unghiul de înclinaţie pe verticală al roţii pânzei de pe latura inactivă.

   Vezi figura 5-4. Utilizaţi şuruburile de reglaj pe verticală pentru a ajusta roata pânzei de pe latura inactivă. Pentru a înclina poziţia roţii, desfaceţi şurubul de reglaj din partea superioară cu un sfert de răsucire. Desfaceţi contrapiuliţa de pe şurubul de reglaj de la bază şi strângeţi şurubul. Strângeţi contrapiuliţele din partea superioară şi cea inferioară.

   Pentru a înclina poziţia roţii, desfaceţi şurubul de reglaj de la bază cu un sfert de răsucire. Desfaceţi piuliţa de pe şurubul de ajustare superior şi strângeţi şurubul. Strângeţi contrapiuliţele din partea superioară şi cea inferioară.

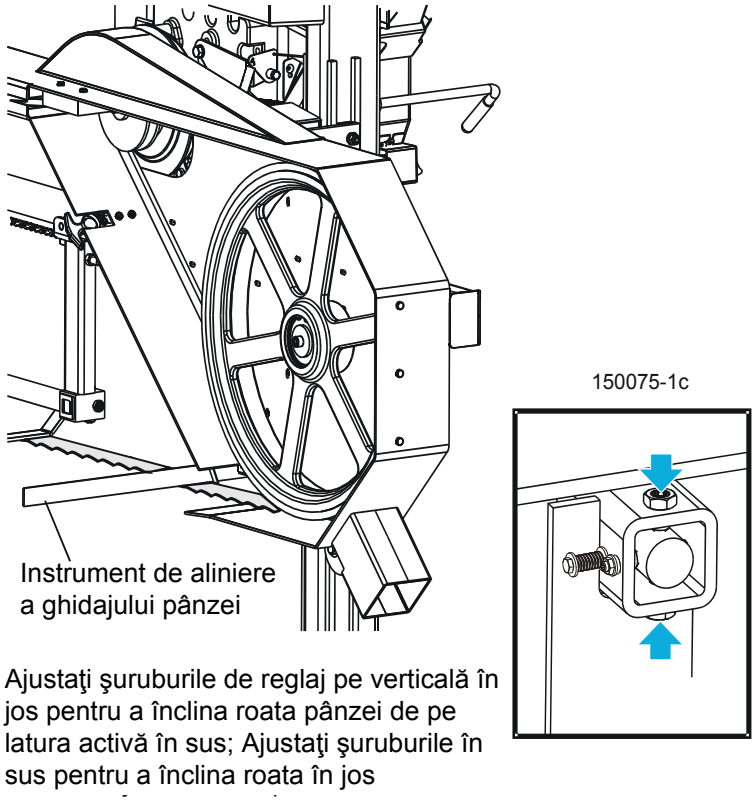


FIG. 5-4

5. Verificaţi din nou înclinaţia pe verticală a roţii pânzei de pe latura activă cu ajutorul intrumentului de aliniere a ghidajului pânzei. Reajustaţi roata pânzei atât cât este necesar până când partea frontală şi cea din psate a instrumentului se află la aceeaşi distanţă de şina patului (± 1.5 mm).

6. Îndepărtaţi instrumentul de pe pânză şi re-ataşaţi-l lângă ghidajul exterior al pânzei.

7. Măsuraţi de la instrument la şina patului, la ambele capete ale instrumentului. Dacă măsurătorile la capătul frontal şi la cel din spate ale instrumentului prezintă diferenţe de peste 1/16” (± 1.5 mm), ajustaţi unghiul de înclinaţie pe verticală al roţii pânzei de pe latura inactivă.

Vezi figura 5-5. Utilizaţi şuruburile de reglaj pe verticală pentru a ajusta roata pânzei de pe latura inactivă. Pentru a înclina poziţia roţii, desfaceţi şurubul de reglaj de la bază cu un sfert de răsucire. Desfaceţi piuliţa de pe şurubul de ajustare superior şi strângeţi şurubul. Strângeţi contrapiuliţele din partea superioară şi cea inferioară.

Pentru a înclina poziţia roţii, desfaceţi şurubul de reglaj din partea superioară cu un sfert de răsucire. Desfaceţi contrapiuliţa de pe şurubul de reglaj de la bază şi strângeţi şurubul. Strângeţi contrapiuliţele din partea superioară şi cea inferioară.

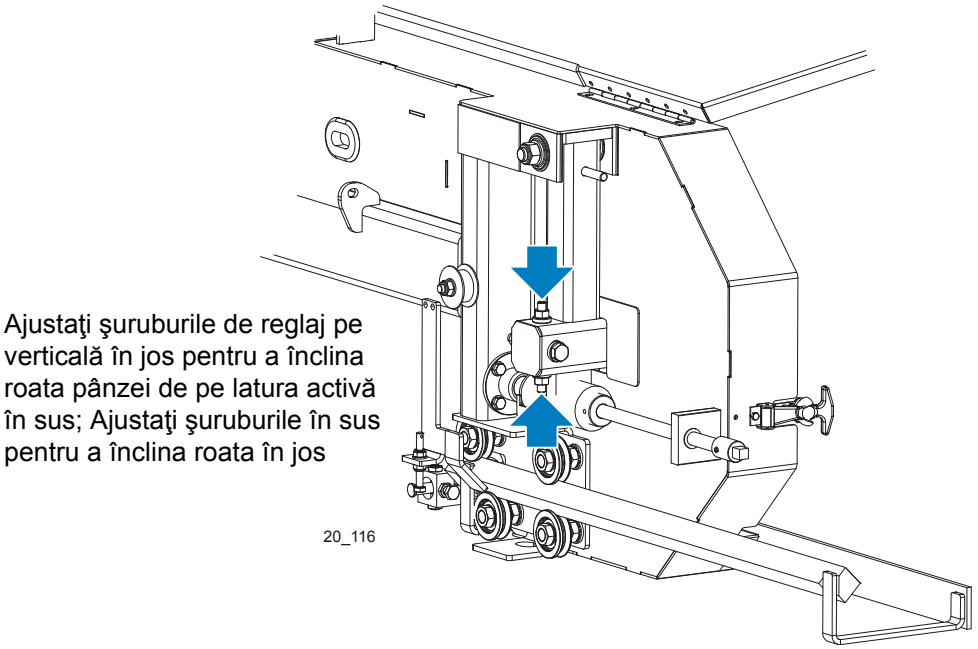


FIG. 5-5

8. Verificaţi din nou înclinaţia pe verticală a roţii pânzei de pe latura inactivă cu ajutorul intrumentului de aliniere a ghidajului pânzei. Reajustaţi roata pânzei atât cât este necesar până când partea frontală şi cea din psate a instrumentului se află la aceeaşi distanţă de şina patului.

9. Verificaţi poziţia pânzei pe roata pânzei de pe latura inactivă.

Vezi figura 5-6. Înclinaţia pe orizontală a roţii pânzei trebuie să fie ajustată în aşa fel încât nişa unei pânze de 1-1/4" să fie cu 3,0 mm în afara marginii frontale a roţii (± 1.0 mm).

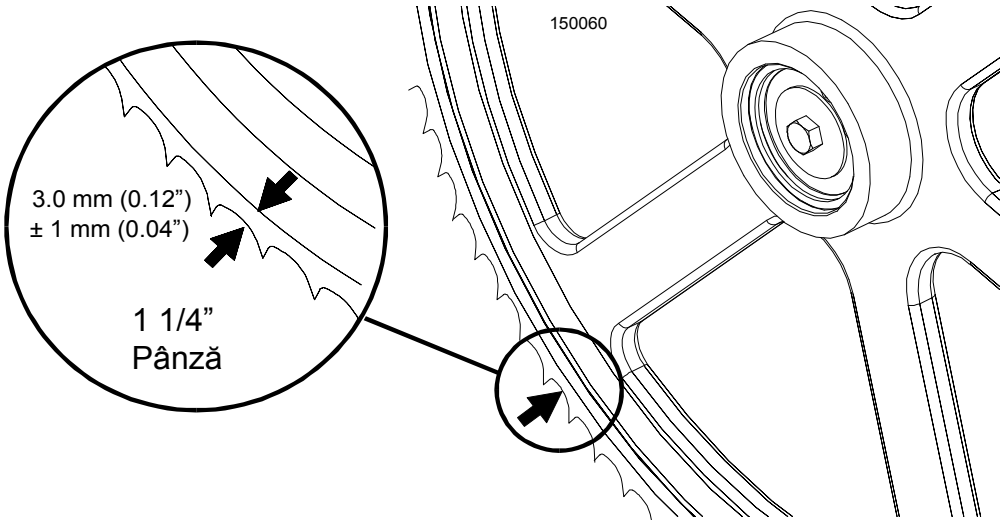


FIG. 5-6

Vezi figura 5-7. Utilizaţi sistemul de reglaj al cantului pentru a ajusta roata pânzei de pe latura

inactivă. Dacă pânza este prea mult înainte pe roată, răsuciţi sistemul de control al cantului în sens invers al acelor de ceas. Dacă este prea mult înapoi pe roată, răsuciţi sistemul de control al cantului în sensul acelor de ceas.

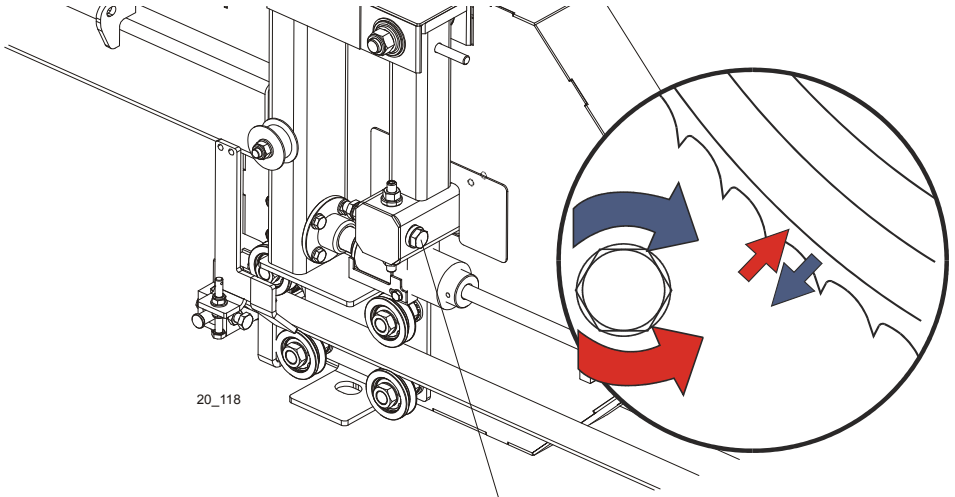


FIG. 5-7

10. Verificaţi poziţia pânzei pe roata pânzei de pe latura inactivă. Pânza trebuie să fie poziţionată pe roată după cum se specifică pentru roata pânzei de pe latura inactivă. Ajustaţi roata pânzei de pe latura activă, dacă este necesar.

Vezi figura 5-8. Utilizaţi şuruburile de reglaj pe orizontală pentru a ajusta roata pânzei de pe latura activă. Desfaceţi contrapiuliţa de pe şurubul de reglaj. Desfaceţi şurubul de reglaj pentru a deplasa pânza în afară pe roată. Strângeţi şurubul de reglaj pentru a deplasa pânza înăuntru pe roată.

Strângeţi contrapiuliţa.

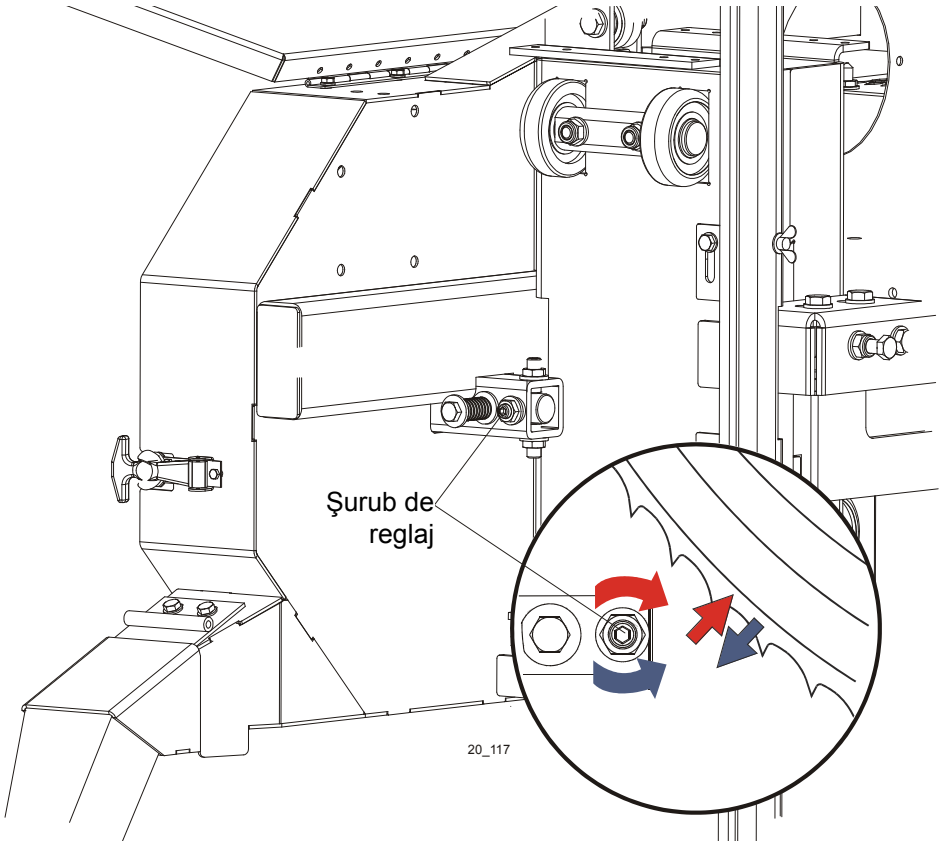


FIG. 5-8

5.5 Ajustarea rolelor şinei inferioare

Vezi figura 5-9. Efectuarea acestor ajustări în mod corect vă va ajuta să obţineţi tăieturi uniforme şi dimensiuni exacte pe lăţimea plăcilor dumneavoastră.

1. Cu ajutorul comutatorului de alimentare, mutaţi căruciorul astfel încât pânza să fie poziţionată deasupra şinei de pat frontale.

2. Verificaţi rolele inferioare. Ambele role trebuie să atingă şina astfel încât să nu le puteţi roti cu mâna. Dacă rolele nu sunt ajustate echilibrat şi puteţi să rotiţi una dintre aceste role, desfaceţi şurubul de blocare şi ajustaţi piuliţele de reglaj până când rola nu poate fi rotită manual. Verificaţi cealaltă rolă şi ajustaţi dacă este cazul. Ajustaţi ambele role până când fiecare susţine în mod egal căruciorul şi nu puteţi roti nicio rolă manual.

3. Deplasaţi căruciorul pe direcţia înainte până când pânza este poziţionată deasupra şinei din spate a patului. Repetaţi etapa #2 până când rolele inferioare sunt ajustate adecvat în faţa şi în spatele gaterului.

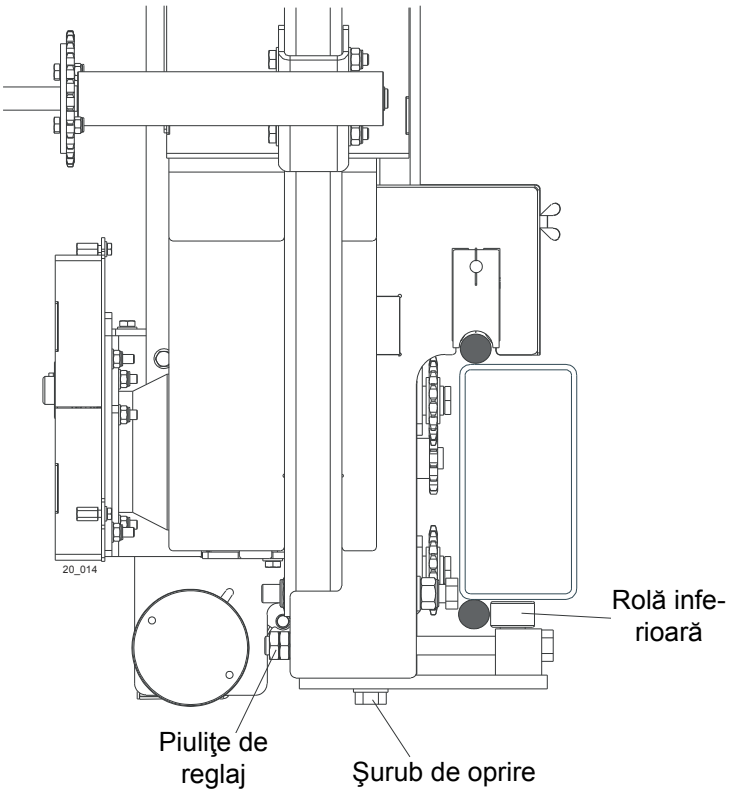


FIG. 5-9

4. Îndepărtaţi ghidajele pânzei sau ajustaţi-le astfel încât să nu atingă pânza.

5. Deschideţi braţul ajustabil al ghidajului pânzei la 1/2" (15mm) faţă de poziţia de deschidere maximă.

6. Deplasaţi căruciorul pe direcţia înapoi până la şina frontală a patului. Ridicaţi capul de tăiere până când baza pânzei este la 17" (400 mm) deasupra părţii exterioare a suportului şinei prin măsurare cu o bandă sau o riglă.

Vezi figura 5-10.

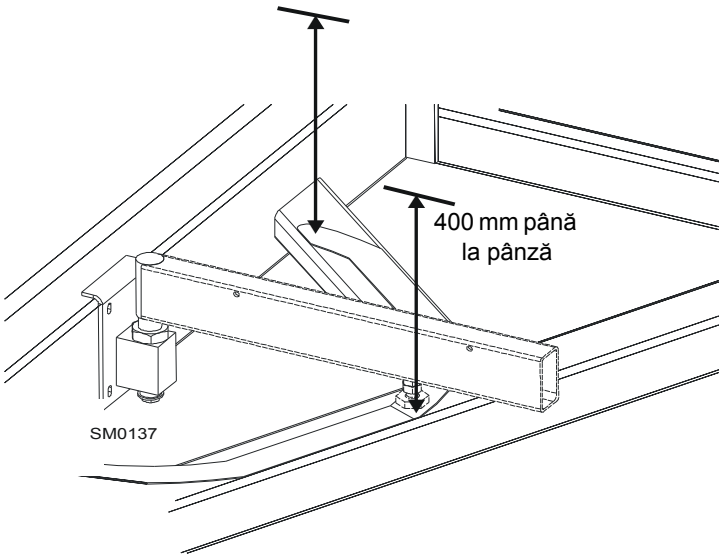


FIG. 5-10

7. Deplasaţi căruciorul pe direcţia înainte pentru a verifica distanţa până la pânză la interiorul suportului şinei. Ambele măsurători trebuie să fie egale ca rezultat în intervalul (± 1,0 mm [0,04"]).

8. Cu ajutorul piuliţelor de reglaj, ajustaţi rolele inferioare pentru a înclina capul de tăiere până când pânza este paralelă (± 1,0 mm [0,04"]) cu suportul şinei.

NOTĂ: Ajustările rolelor şinei inferioare modifică unghiul dintre capul de tăiere şi şinele patului gaterului. Sunt necesare doar mici ajustări ale rolelor şinei inferioare.

9. După ce au fost ajustate corespunzător rolele şinei inferioare, ajustaţi şurubul de oprire. Strângeţi şurubul până când atinge ţeava principală a patului. Apoi, desfaceţi şurubul cu 1/2 de răsucire. Distanţa de la şină terbuie să fie de 1,0 mm [0,04"].

PRUDENŢĂ! Este important ca şurubul de oprire să fie ajustat corespunzător pentru a asigura o bună fixare a căruciorului pe şină. Nerespectarea procedurii de ajustare corespunzătoare a şurubului de oprire poate cauza deteriorări la nivelul capului de tăiere, în special la transportarea gaterului.

Vezi figura 5-11.

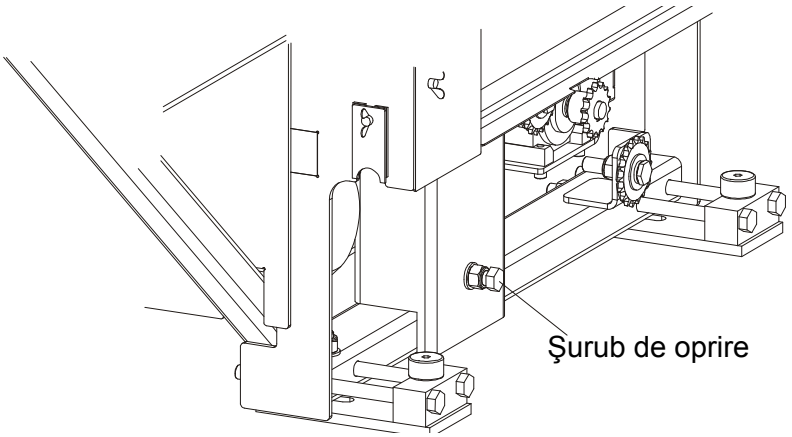


FIG. 5-11

5.6 Ajustarea şinelor patului la pânză

1. Ajustaţi şina frontală a patului la 90^{o} faţă de ţeava principală a patului.

2. Mutaţi capul de tăiere pe poziţia centrală deasupra şinei frontale a patului.

3. Măsuraţi distanţa din partea superioară a şinei până la baza pânzei. Efectuaţi această măsurătoare la fiecare capăt al şinei.

4. Cele două măsurători trebuie să indice 15” (375 mm).

5. Desfaceţi şuruburile de blocare şi răsuciţi piuliţa de reglaj al înălţimii interioare pentru a ajusta înălţimea capătului interior al şinei.

Vezi figura 5-12.

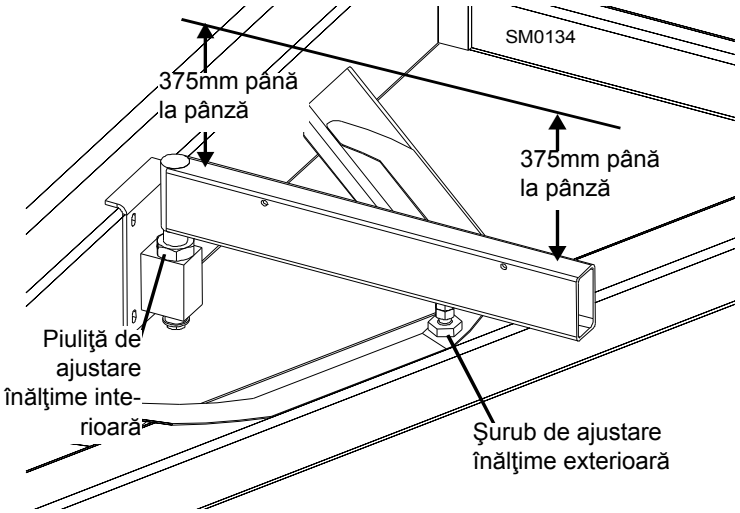


FIG. 5-12

6. Desfaceţi contrapiuliţa şi răsuciţi şurubul de reglaj al înălţimii exterioare pentru a ajusta înălţimea capătului exterior al şinei.

7. Mutaţi capul de tăiere astfel încât pânza să fie poziţionată deasupra părţii centrale a şinei frontale principale a patului.

8. Măsuraţi distanţa între baza pânzei şi şina patului la fiecare capăt al şinei patului. Şina patului trebuie să măsoare 15" (375 mm) (+ 1,0 mm la capătul exterior) de la pânză la fiecare capăt al şinei.

   Vezi figura 5-13.

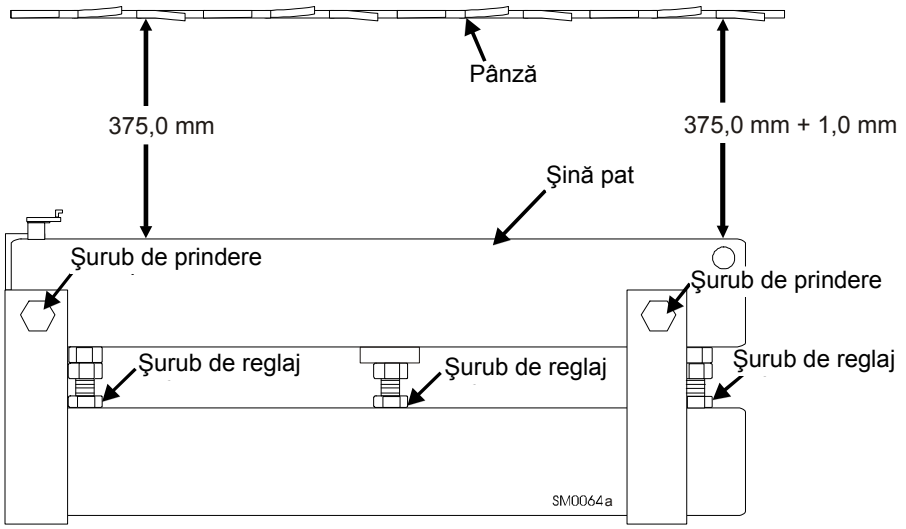


FIG. 5-13

9. Desfaceţi şuruburile de prindere ale şinei patului şi răsuciţi şuruburile de reglaj pentru a deplasa şinele patului spre pânză, dacă este necesar.

10. Înşurubaţi la loc şuruburile de prindere şi cele de reglaj.

11. Fără să ajustaţi înălţimea capului de tăiere, verificaţi cele trei şine principale ale patului rămase şi şina din spate. Ajustaţi-le astfel încât să măsoare toate aceeaşi distanţă de la pânză la ambele capete ale şinei patului.

5.7 Ajustarea pe verticală a braţului de ghidare

1. Mutaţi capul de tăiere astfel încât braţul ghidajului pânzei să fie direct deasupra unei şine de pat.

2. Deschideţi braţul ghidajului pânzei la 1/2" (15mm) faţă de poziţia de deschidere maximă.

3. Măsuraţi din partea superioară a şinei patului la braţ.

Vezi figura 5-14.

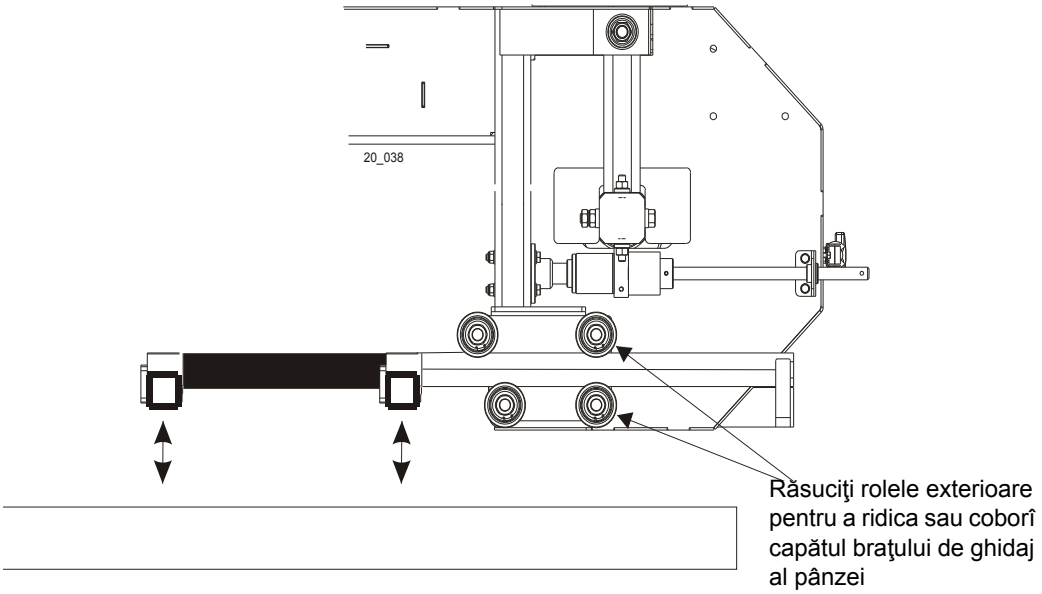


FIG. 5-14

4. Deschideţi braţul ghidajului pânzei în interior la 1/2" (15mm) faţă de poziţia de închidere maximă. Măsuraţi din nou din partea superioară a şinei patului la braţ.

5. Ajustaţi braţul astfel încât măsurătoarea de la capătul de sus al şinei patului la braţul închis să aibă aceleaşi rezultate cu măsurătoarea de la capătul superior al şinei patului la braţul deschis.

Dacă braţul este coborât prea jos în poziţia închisă, slăbiţi rola exterioară inferioară şi strângeţi rola exterioară superioară (Vezi point 6.)

6. Rolele sunt montate pe şuruburile camei care ridică sau coboară braţul la răsucire.

Pentru a ajusta rolele, localizaţi şuruburile camei de pe interiorul carcasei şi răsuciţi până când braţul este coborât sau ridicat, în funcţie de caz. Verificaţi din nou braţul în ambele poziţii, deschis şi închis. Repetaţi ajustările până când braţul este la aceeaşi distanţă de la şina patului în poziţia deschisă şi în poziţia închisă.

7. Braţul ghidajului pânzei trebuie să fie ascuns, dar nu strâns prea tare, în role. Trebuie să puteţi să îl mişcaţi înăuntru şi în afară cu o presiune fermă a mâinii. Nu trebuie să existe acel joc lateral.

5.8 Reglare lanţ al braţului de acţionare a pânzei

1. Braţul şi pinioanele de lanţ trebuie să fie aliniate (vezi figura de mai jos). Dacă nu, eliberaţi şuruburile şi ajustaţi poziţia braţului. Apoi, strângeţi şuruburile.

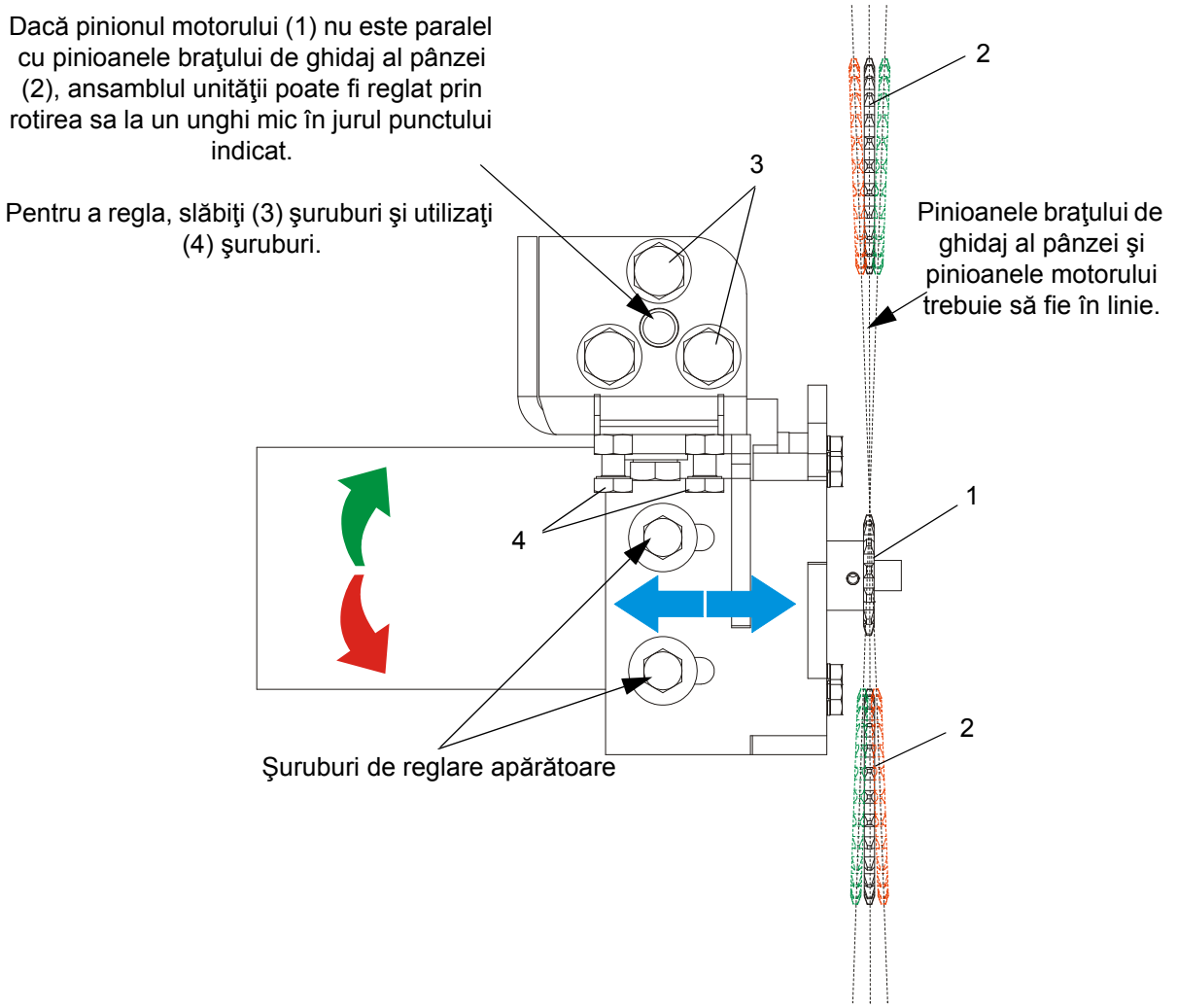


FIG. 5-14

2. Verificaţi tensiunea lanţului braţului de ghidare a pânzei. Strângeţi lanţul dacă este prea larg.

Vezi figura 5-15. Refixaţi cele două şuruburi. Mutaţi suportul cu motorul în jos pentru a strânge

lanţul, mutaţi-l în sus pentru a-l desface. Apoi, strângeţi şuruburile.

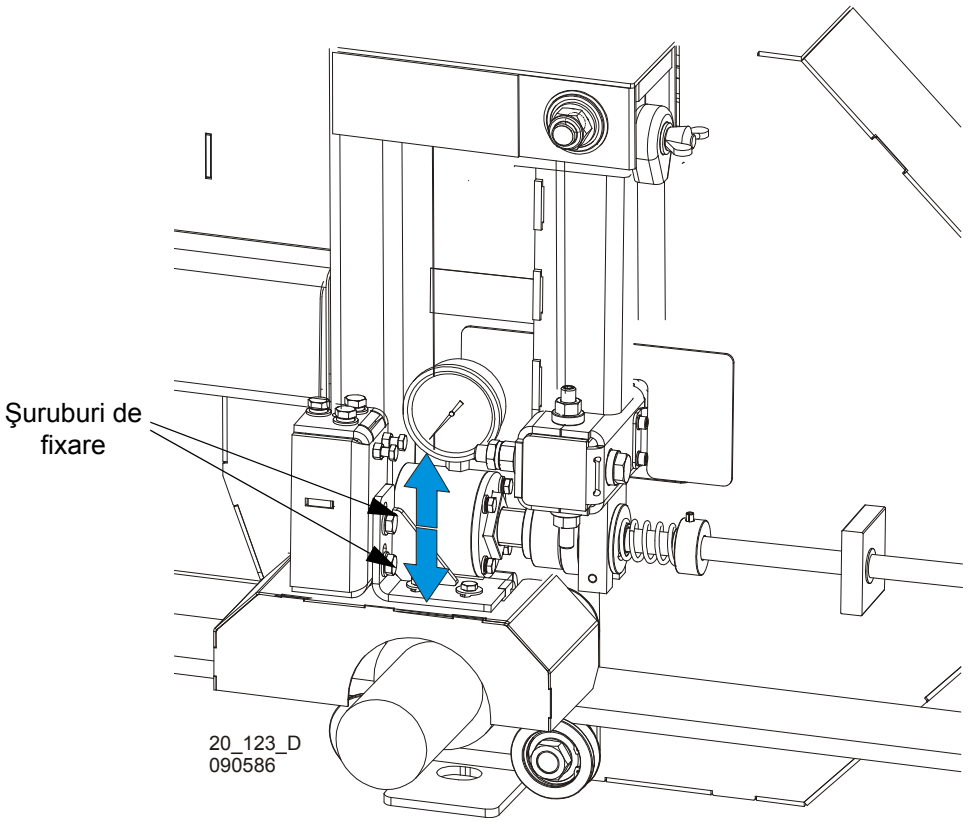


FIG. 5-15

PRUDENŢĂ! Nu supratensionaţi lanţul. Va provoca uzarea prea timpurie a lanţului şi pinioanelor de lanţ.

5.9 Îndepărtarea cursei moarta a capului de tăiere

Verificaţi capul de tăiere de posibilitatea existenţei unei curse moarte la fiecare 200 de ore de operare. Dacă este necesar, îndepărtaţi cursa moartă.

Vezi figura 5-16. Pentru a verifica dacă există o cursă moartă, prindeţi partea exterioară a capului de tăiere şi mişcaţi-l ca în figura de mai jos. Pentru a elimina cursa moartă, parcurgeţi următoarele etape:

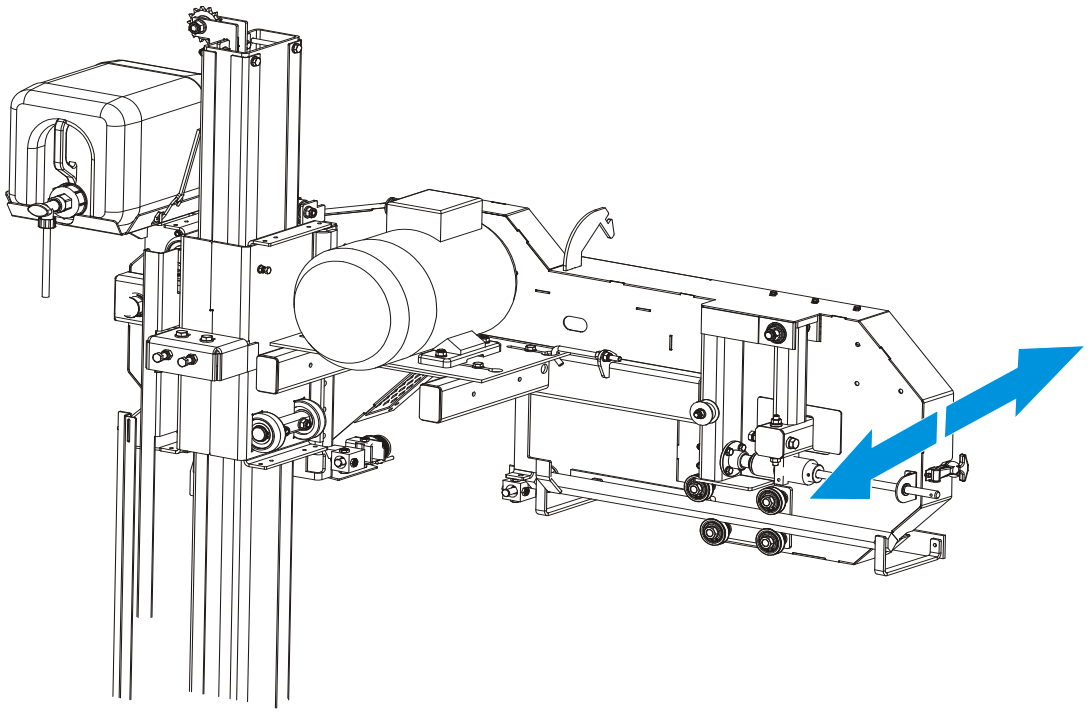


FIG. 5-16

1. Desfaceţi piuliţele de la şuruburile de reglaj şi şuruburile de instalare prezentate în Figura 5-16, ajustaţi rolele de ghidaj ale stâlpului ca în Figura 5-16.

2. Strângeţi în mod egal cele două şuruburi de reglaj pentru a elimina cursa moartă.

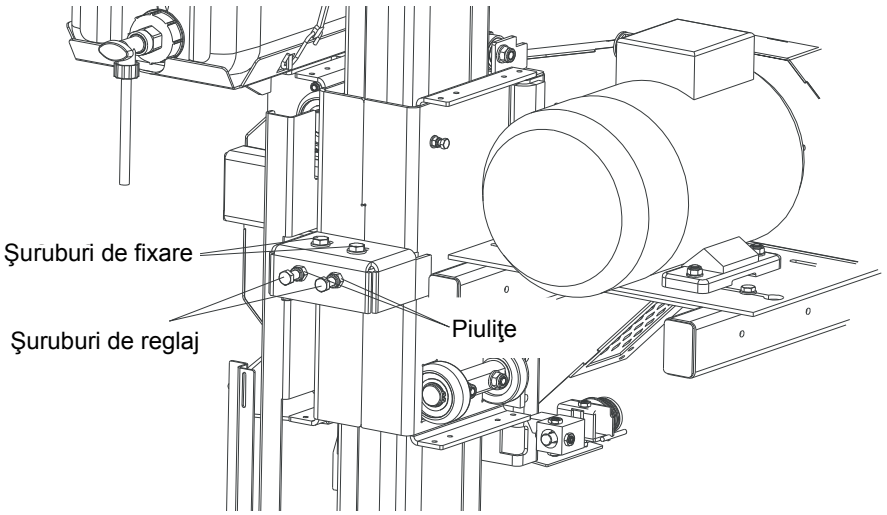


FIG. 5-16

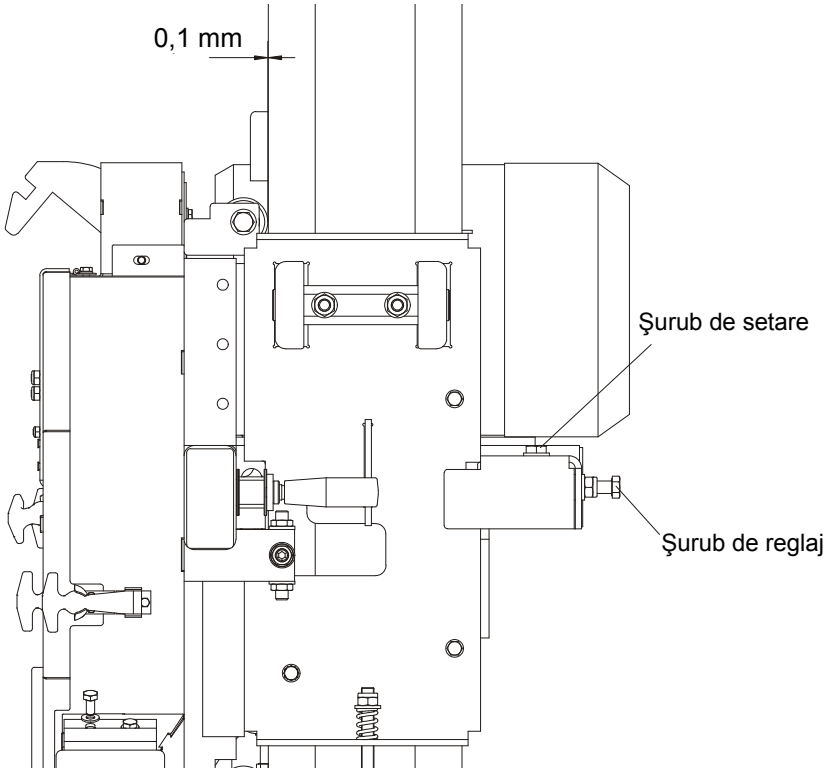


FIG. 5-16

3. Strângeţi şuruburile de instalare şi piuliţele.

PRUDENŢĂ! Nu strângeţi prea tare şuruburile de reglaj. Se pot produce deteriorări la nivelul sistemului de ridicare-coborâre.

5.10 Ajustarea pe orizontală a braţului de ghidare

1. Aşezaţi înapoi în braţ sstemul de ghidaj (dacă l-aţi îndepărtat). Aşezaţi-l înapoi astfel încât manşonul cu flanşă de pe rolă să fie la aproximativ 3,0 mm (0,04") de la partea din spate a pânzei când braţul este la o distanţă de 15 mm (0,6") de poziţia de deschidere maximă.

2. Închideţi sistemul de prindere la aproximativ 15 mm (0,6") de la poziţia de închidere maximă. Verificaţi dacă flanşa este la aceeaşi distanţă faţă de partea din spate a pânzei.

   Vezi figura 5-17.

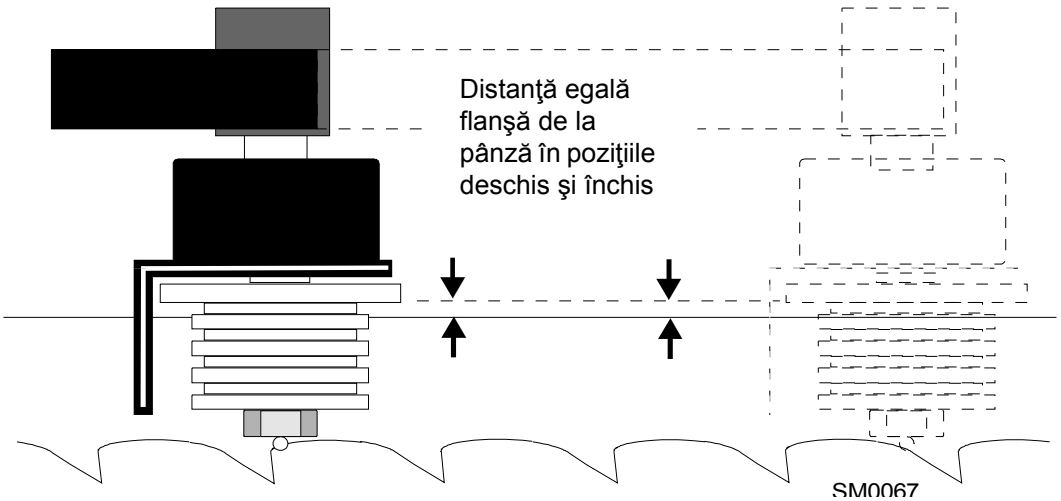


FIG. 5-17

3. Dacă este necesară o ajustare, rolele de ghidaj pot fi ajustate înăuntru sau în afara sistemelor de montare pentru a deschide sau a închide spaţiul de separare.

Vezi figura 5-18.

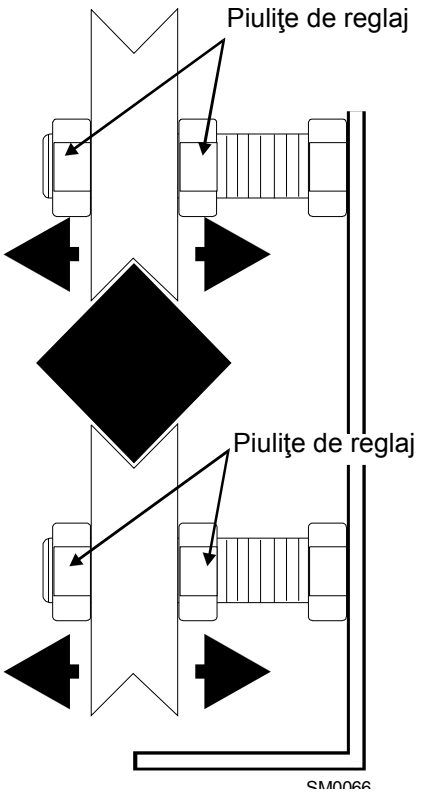


FIG. 5-18

4. Ajustarea celor două role exterioare (cât mai departe de motorul braţului) înăuntru va duce la deplasarea flanşei faţă de pânză.

5. Ajustarea celor două role exterioare în afară va duce la deplasarea flanşei către pânză.

6. Ajustaţi până când flanşa rolei este la aceeaşi distanţă de partea exterioară a pânzei în poziţia deschisă şi închisă.

5.11 Alinierea ghidajelor de pânză

Fiecare gater Wood-Mizer are două sistemede montare ghidajului pânzei care ajută la menţinerea unei tăieturi drepte a pânzei. Cele două sisteme de montare ghidajului pânzei sunt amplasate pe capul de tăiere pentru a ghida pânza de fiecare parte a materialului de tăiat.

Un sistem de montare a ghidajului pânzei este instalat pe o poziţie fixă pe partea mobilă a capului de tăiere. Acest sistem este denumit sistemul „interior” de montare a pânzei.

Celălalt sistem de montare a ghidajului pânzei este instalat pe latura inactivă a capului de tăiere. Acest sistem este denumit sistemul „exterior” de montare a pânzei şi este ajustabil pe lăţimi diferite de materiale ce urmează a fi prelucrate.

Alinierea ghidajului de pânză implică patru etape:

- Devierea pânzei
- Înclinaţia verticală a ghidajului pânzei
- Spaţierea flanşei ghidajului pânzei
- Înclinaţia orizontală a ghidajului pânzei

Efectuaţi alinierea ghidajului pânzei după ce aţi aliniat pânza pe roţi şi aţi ajustat pânza şi braţul ghidajului pânzei pe poziţie paralelă cu şinel patului. După alinierea ghidajului pânzei, verificaţi indicatorul de pe scara de măsurare pentru a vă asigura că este ajustat corect. (*See Section 5.19*.)

NOTĂ: Pe durata alinierii ghidajului pânzei, îndepărtaţi şuruburile de reglaj al ghidajului pânzei şi aplicaţi ulei de lubrifiere ca de pildă 10W30 sau Dexron III la fiecare şurub. Această procedură va preveni apariţia coroziunii la nivelul şuruburilor şi al orificiilor şi va înlesni procedura de ajustare a şuruburilor.

5.12 Devierea pânzei

Parcurgeţi următoarele etape pentru a obţine o deviere adecvată a pânzei cu ghifajele pânzei.

1. Ridicaţi căruciorul până când pânza este la 15" (375mm) deasupra şinei patului. Măsuraţi distanţa reală cu o bandă din partea superioară a şinei până la baza pânzei.

2. Instalaţi sistemele de ghidare a pânzei. Asiguraţi-vă că cele două şuruburi de instalare sunt înşurubate în arborele ghidajului pânzei până când se ating unul pe celălalt.

   Vezi figura 5-19.

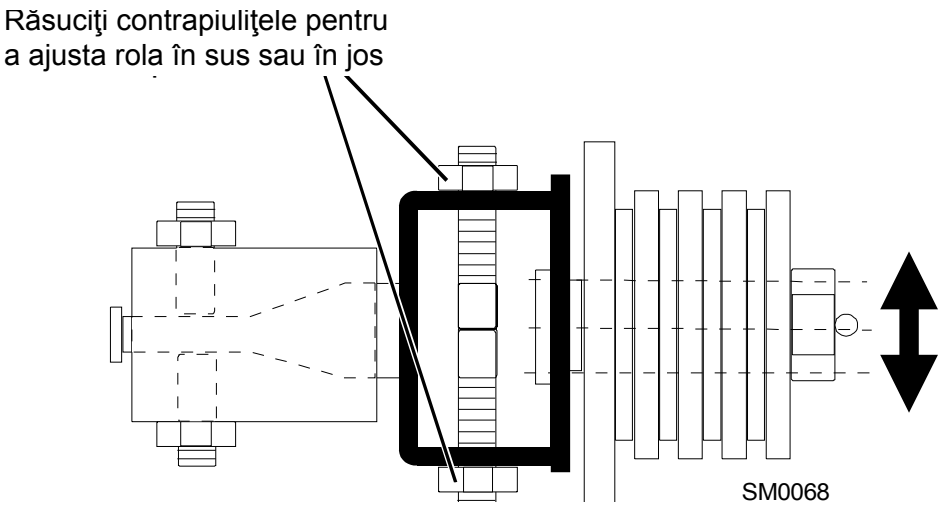


FIG. 5-19

3. Desfaceţi contrapiuliţa de la bază şi strângeţi contrapiuliţa superioară până când ghidajul pânzei face pânza să devieze în jos cu 6.0 mm (0.24").

4. Repetaţi pentru celălalt ghidaj al pânzei.

   NOTĂ: Asiguraţi-vă că dispozitivul de ghidaj al pânzei atinge pânza la ambele sisteme de montare a ghidajului. Dispozitivul de ghidaj exterior al pânzei trebuie să fie verificat cu braţul la distanţă minimă şi maximă de deplasare.

5.13 Ajustarea înclinaţiei verticale a ghidajului pânzei

Verificaţi ca ghidajul de pânză să nu încline pânza în sus sau în jos. Un instrument de aliniere a ghidajului pânzei (BGAT) este furnizat pentru a vă ajuta să măsuraţi înclinaţia verticală a pânzei.

1. Deschideţi braţul de ghidaj al pânzei la 15 mm (0,6") de poziţia de deschidere maximă.

2. Prindeţi instrumentul de aliniere pe pânză. Poziţionaţi instrumentul aproape de o rolă a ghidajului pânzei. Asiguraţi-vă că acesta nu se sprijină pe un dinte sau margine crestată şi că stă plat pe pânză.

   Vezi figura 5-20.

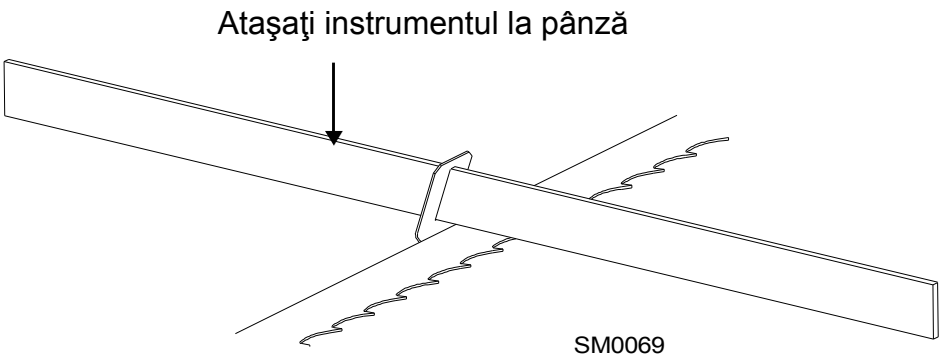


FIG. 5-20

3. Măsuraţi acum din nou de la baza instrumentului la şina patului.

   NOTĂ: Dacă gaterul este dotat cu capace de şine ale patului din oţel inoxidabil, asiguraţi mai degrabă o măsurare de la instrumentul de aliniere a ghidajului pânzei la suprafaţa superioară a capacului decât la ţeava şinei patului.

4. Mutaţi căruciorul astfel încât capătul frontal al instrumentului să fie poziţionat deasupra primei şine a patului.

5. Măsuraţi acum din nou de la baza instrumentului la şina patului.

6. Desfaceţi un şurub de fixare pe latura sistemului de montare a ghidajului pânzei.

7. Utilizaţi şuruburile de fixare indicate pentru a înclina ghidajul pânzei până când distanţa măsurată de la şina patului la instrument este egală cu cea măsurată prima dată la centrul instrumentului.

Vezi figura 5-21.

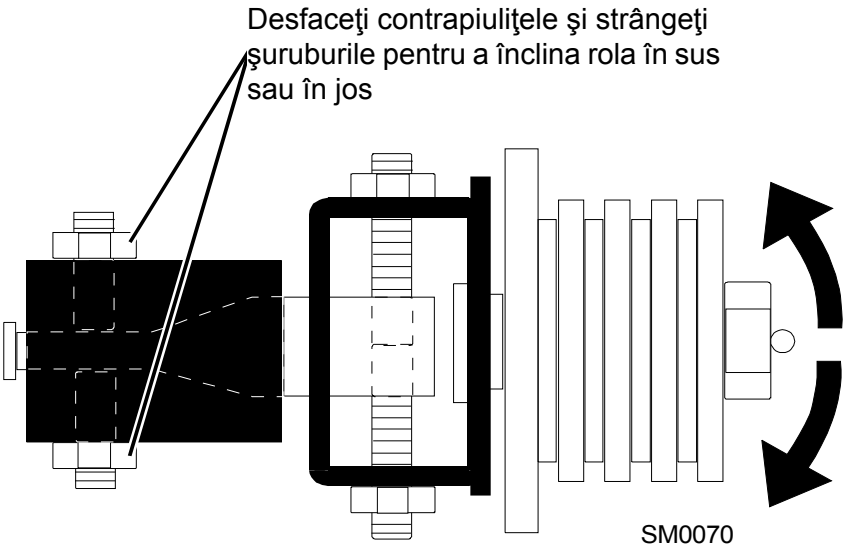


FIG. 5-21

8. Mutaţi căruciorul înainte astfel încât capătul din spate al instrumentului să fie poziţionat deasupra şinei a patului.

9. Utilizaţi şuruburile de fixare indicate pentru a ajusta înclinaţia ghidajului pânzei până când distanţa măsurată de la şina patului la instrument este egală cu cele două măsurate deja.

10. Mutaţiinstrumentul aproape de celălalt ghidaj al pânzei şi repetaţi etapele anterioare.

NOTĂ: Dacă au fost efectuate ajustări majore de înclinaţie a ghidajului pânzei, remăsuraţi distanţa dintre pânză şi şinele patului pentru a asigura o deviaţie corectă de 6.0 mm (0.24") a ghidajului pânzei. Ajustaţi dacă este necesar.

5.14 Spaţierea ghidajului pânzei

SUGESTIE: Când ajustaţi spaţierea ghidajului pânzei, desfaceţi şurubul superior de fixare şi doar un şurub lateral de fixare. Acest lucru va asigura păstrarea ajustărilor efectuate la nivelul înlcinaţiei orizontale şi verticale când sunt refixate şuruburile.

1. Reglaţi ghidajul pânzei inferior în aşa fel încât flanşa de ghidaj a pânzei să fie la aproximativ 1.5 – 3.0 mm (0.06 - 0.12") de partea din spate a pânzei.

2. Desfaceţi un şurub lateral şi unul superior după cum este ilustrat. Mişcaţi uşor ghidajul pânzei înainte sau înapoi până când este poziţionat corect.

   Vezi figura 5-22.

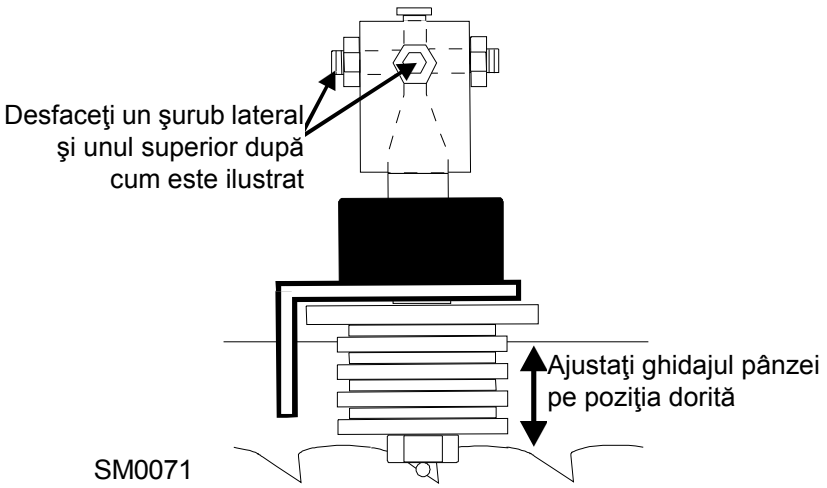


FIG. 5-22

3. Refixaţi cele două şuruburi.

4. Reglaţi ghidajul pânzei superior în acelaşi fel astfel încât flanşa de ghidaj a pânzei să fie la aproximativ 1.5 – 3.0 mm (0.06 - 0.12") de partea din spate a pânzei.

5.15 Ajustarea înclinaţiei orizontale

1. La sfârşit,ambele ghidaje ale pânzei trebuie să fie înclinate pe orizontală. Ajustaţi braţul de ghidare a pânzei la jumătatea distanţei spre interior.

   Vezi figura 5-23.

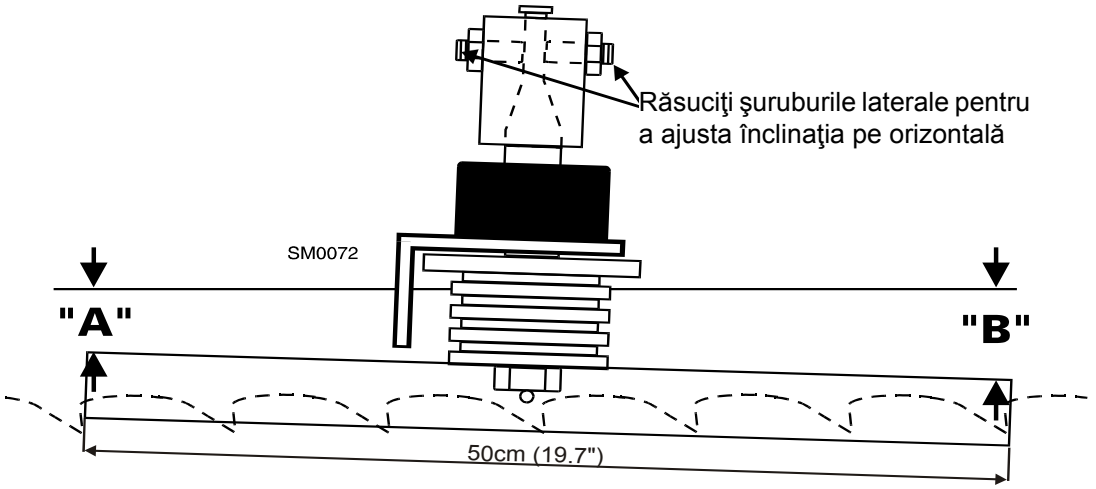


FIG. 5-23

2. Poziţionaţi instrumentul de aliniere a ghidajului pânzei pe faţa rolei de ghidaj interior al pânzei.

3. Centraţi instrumentul pe rolă şi măsuraţi distanţa dintre marginea din spate a pânzei şi rigla de la capătul cel mai apropiat de ghidajul interior al pânzei ("B").

4. Măsuraţi distanţa dintre latura din spate a pânzei şi celălalt capăt a riglei ("A").

5. Rola trebuie să fie uşor înclinată la stânga (A = B – 6,0 mm[0,24"]).

6. Utilizaţi şuruburile laterale pentru a ajusta înclinaţia orizontală a rolei.

7. Repetaţi etapele 3 -7 pentru rola ghidajului intern al pânzei.

   NOTĂ: Odată ce au fost ajustate ghidajele pânzei, orice devieri la tăiere sunt cauzate cel mai probabil de pânză. **Consultaţi Manualul cu instrucţiuni privind pânza, Formular #600.**

5.16 Ajustarea pe orizontală a suporturilor laterale

Buştenii şi plăcile sunt fixate în suporturile laterale în timpul tăierii. Suporturile laterale trebuie să fie poziţionate unifrom pe pat pentru a asigura poziţionarea uniformă a buşteanului.

1. Balansaţi în jos suportul lateral.

2. Măsuraţi între faţa suportului şi ţeava principală a patului. Efectuaţi măsurători la ambele capete ale suportului lateral pentru a vă asigura că este paralel cu şina.

   Vezi figura 5-24.

3. Utilizaţi cele două şuruburi inferioare pentru a ajusta suportul lateral astfel ca B=A.

4. Repetaţi procedura pentru restul suporturilor laterale.

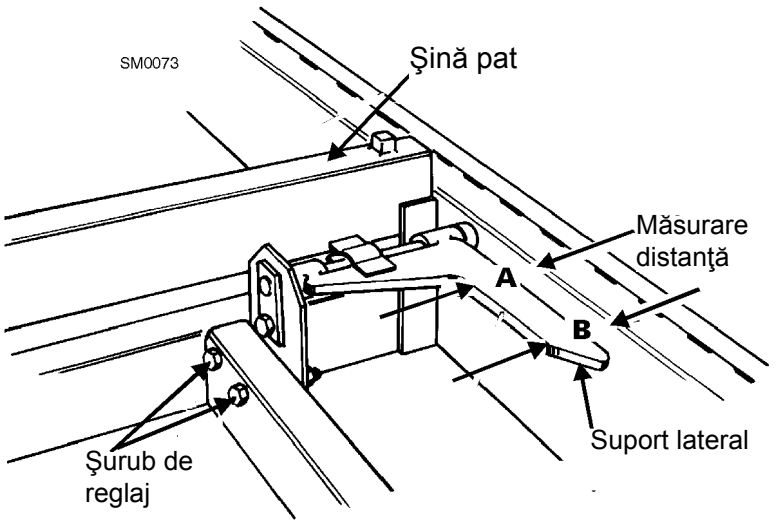


FIG. 5-24

5.17 Ajustarea pe verticală a suporturilor laterale

1. Aşezaţi o placă plat de-a lungul şinelor patului.
2. Ridicaţi sus un suport lateral astfel încât să fie poziţionat pe verticală.
3. Trageţi energic în sus de partea superioară a suportului ca şi cum un buştean ar fi proptit în el.

   Vezi figura 5-25.

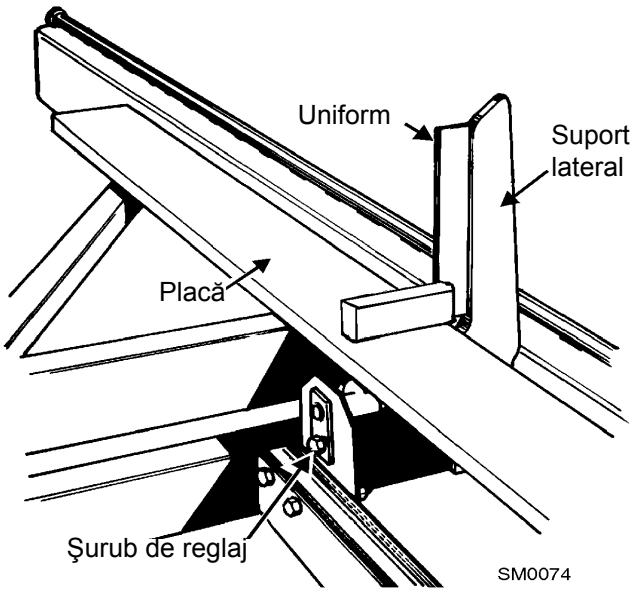


FIG. 5-25

4. Verificaţi unghiul format de fiecare suport cu o suprafaţă planp de pe placă.
5. Suportul lateral trebuie să fie la 90^{o} faţă de şinele patului sau înclinat înainte cu 1,0 mm (0.04"). Desfaceţi şurubul de reglaj superior, ajustaţi suportul lateral şi strângeţi înapoi şurubul.
6. Repetaţi procedura pentru restul suporturilor laterale.

5.18 Înclinarea capului de tăiere

Când pânza penetrează un buştean lat sau cant, partea din afară a capului de tăiere va cădea uşor. Pentru a compensa această cădere, utilizaţi piuliţele orizontale ale rolei inferioare pentru a ridica partea din afară a capului de tăiere cu 1.5 mm (0,06").

1. Mutaţi capul de tăiere astfel încât pânza să fie poziţionată cu 375 mm (14,76") deasupra unei şine a patului.

2. Ajustaţi piuliţele orizontale ale rolei inferioare până când pânza măsoară 376 mm (14,80") de la şina patului lângă ghidajul exterior al pânzei.

Vezi figura 5-26.

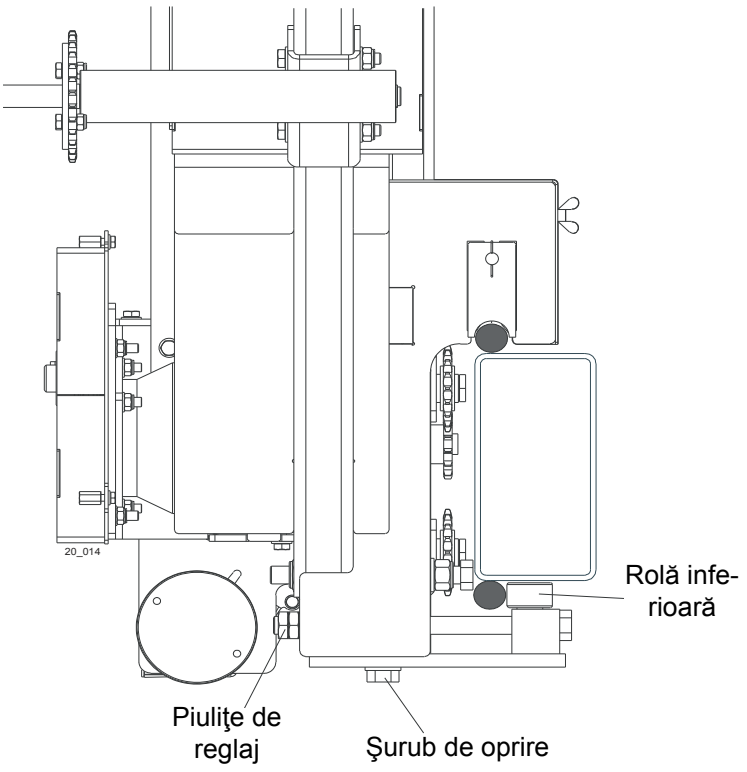


FIG. 5-26

Vezi figura 5-27.

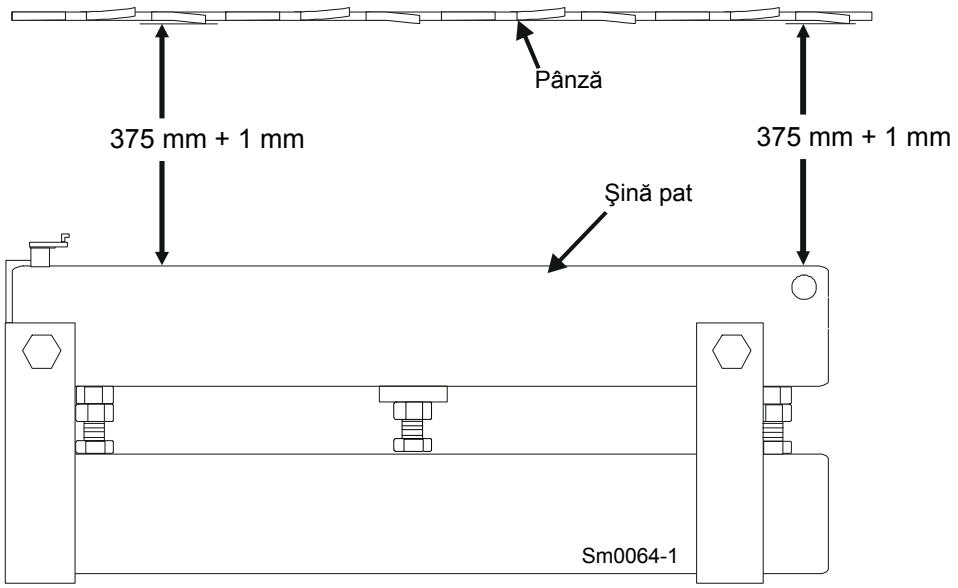


FIG. 5-27

5.19 Ajustarea scării de înălţime a pânzei

După ce întregul gater a fost aliniat şi toate ajustările au fost efectuate, verificaţi dacă scara de înălţime a pânzei indică distanţa reală de la pânză la şinele patului.

1. Deplasaţi capul de tăiere astfel încât pânza să fie poziţionată direct deasupra uneia dintre şinele patului. Măsuraţi distanţa de la marginea inferioară a unui dinte de jos al pânzei până la partea superioară a şinei patului (sau a manşonului din oţel inoxidabil dacă este cazul).

   Vezi figura 5-28.

2. Vizualizaţi scara de înălţime a pânzei cu privirea la nivelul indicatorului.

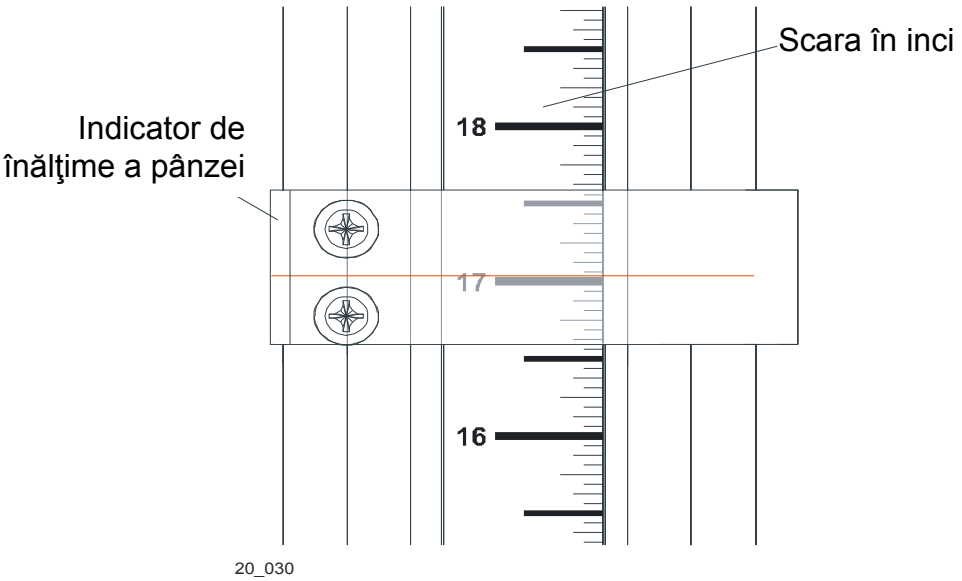


FIG. 5-28

3. Desfaceţi şuruburile de montare a consolei indicatorului şi ajustaţi consola până când indicatorul este aliniat cu marcajul corect de pe scară. Refixaţi şuruburile de montare a consolei.

   De exemplu, dacă măsurătoarea de la pânză la şina patului a fost de 375 mm (14.76"), asiguraţi-vă că indicatorul indică 375 mm (14.76") pe scară.

EC declaration of conformity

according to EC Machinery Directive 2006/42/EC

We herewith declare,

Wood-Mizer Industries sp. Z O.O.
114 Nagorna street, 62-600 Kolo; Poland.

That the following described machine in our delivered version complies with the appropriate basic 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.

Designation of the machine:	**SAWMILL**
TYPE:	LT20
Model:	……
No. of manufacturer:	……
Applicable EC Directives:	EC Machinery Directive 2006/42/EC EC Low-Voltage Directive 2006/95/EC EC Electromagnetic Compatibility Directive 2004/108/EC
Applicable Harmonized Standards:	EN ISO 12100 : 2009, EN ISO 13857 : 2008; EN 349 : 2008; EN 1807 : 2009; EN 982 : 2008; EN 60204-1 : 2007.
Notified Body according to annex IV:	PZ.LSV; Pruf- und Zertifizierungsstelle des Spitzenverbandes der landwirtschaftlichen Sozialversicherung
Notification No	2157
Responsible for:	EC type examination
EC type-examination certificate no.	LSV-EG-2010/123
Responsible for Technical Documentation	Roman Frontczak / R&D Director
Date/Authorized Signature:	26.01.2010
Title:	R&D Director