



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

R e t a i n f o r f u t u r e u s e Zachować do przyszłego użytku Сохраните для последующего и с п о л ь з о в а н и я A conserver pour une utilisation future Für zukünftige Benutzung aufbewahren B e h o l d f o r s e n e r e b r u k 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 Pästrați acest manual pentru utilizare viitoare Conservar para futuras consultas Behall för framtida användning U ch ovejte pro další použití Hranite za prihodnjo uporabo

www.wood-mizer.eu



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

Form #2413

Original manual

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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 Koło, 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.

Technical data are subject to change without prior notice.

Actual product may differ from product images. Some illustrations show machines with optional equipment.

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SECTION 1 SERVICE

1.1 Safety & General Information

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

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

The MR200 Multi Saw is intended for sawing wood only. See Section Specifications for log size capacities of the machine. The machine must not be used for any other purposes such as cutting ice, metal or any other materials.

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

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

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

1.2 If You Need To Order Parts

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

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

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

1.3 Customer and Multi Saw Identification

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







FIG. 1-1

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



FIG. 1-2

1.4 If You Need Service

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

Office Hours:

Country	Monday - Friday	Saturday	Sunday
Poland	8.00 am <i>-</i> 04:30 pm	Closed	Closed



1.5 E100 Multi Saw Components







SECTION 2 SAFETY INSTRUCTIONS

2.1 Safety Symbols

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



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



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



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



IMPORTANT! indicates vital information.

NOTE: gives helpful information.

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

2.2 Safety Instructions

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

Observe safety instructions



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

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

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



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



Wear Safety Clothing



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

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



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

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



Keep Multi Saw and Area Around Multi Saw Clean



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

Dispose of sawing by-products properly



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

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

Check Multi Saw before operation



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





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

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

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

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



Keep Persons Away



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

Keep Hands Away

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

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

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





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

WARNING! Kickback hazard. Stay clear of area during operation. Follow all anti-kickback service and safety rules. Failure to do so may result in serious injury.





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

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

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

Use Proper Maintenance Procedures



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

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





WARNING! Consider all electrical circuits energized and dangerous.

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

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

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



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



WARNING! Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.





WARNING! No exchange with a different type of laser is permitted, and no additional optical equipment shall be used.



DANGER! Operator can not for any reason perform any laser maintenance or repair work. Repair shall only be carried out by the laser manufacturer or authorised persons.

Keep Safety Labels In Good Condition

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

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

Introduction

Only persons who have read and understood the entire operator's manual and were trained in OHS rules should operate the Multi Saw.

The machine may be operated only if electric system, mechanisms and all kinematic drive systems work properly.

It is not allowed to operate the Multi Saw with the guards removed and make any adjustments when the machine drives are engaged.

Use only original spare parts and do not make any modifications to the machine.

Side guards are mounted with screws and protected against accidental opening with interlocked limit switches connected to tachometer. It allows to open the side guards only when spindles are completely stopped.

Hazards

Working on the Multi Saw can create the following hazards:

- Hitting with the material thrown out by circular saws
- Body injury in the consequence of touching rotating saws.
- Sawdust in eyes
- Hearing loss due to noise during machine operation (sound power level corrected with A characteristic at the workplace is 103.8 + /- 1.0 [dBA])
- Electrical shock



Protection and Safety Devices

Working area and mechanisms protection guards

Sawing area and non-working tools area are secured with the steel cover. Saw spindles drive belt transmission, chain transmission and gear transmission are secured with covers. On the infeed side there are four rows of anti-kickback fingers, and there is one row of the upper anti-kickback fingers and flexible cover on the outfeed side,

Protective and safety system

To protect operators against electric shock:

All metal parts are connected to protective conductor.

The machine is equipped with overload protection

Used two Emergency Stop switch to stop quickly the machine.

Emergency Stop

There are two Emergency Stop Buttons: one on the control box (for feeding operator) and the second one on the outfeed side of the machine frame (for operator who remove boards).

Operator's requirements

- Only operator who get adequate training in safety operation of the machine and signed the training certification can operate the Multi Saw.
- Before operating the machine operators must read section 2 of this manual (machine connection to electrical system) and sections 3 and 4.
- Check if the saws are secured properly and tightening of saddle mounting bolts .
- Use spacers between saws with diameter recommended by the manufacturer
- Covers must be in good condition.
- Do not remove sawdust and debris manually near moving parts.
- Do not saw wood which may contain any foreign matters.
- Maintain a clean and clear operator's positions and do not let the sawdust buildup around Multi Saw.
- Observe all safety instructions and rules.
- Use ear protection.
- When sawing is finished, use the MAIN SWITCH to switch off the machine and padlock it.



DANGER! The machine should be operated by two persons. Both of them should be on the left side of the machine (from infeed side). It is not allowed to stay along the cutting line when the machine is working.

See Figure 2-1 Operator's work-place and Emergency Stop buttons location.



FIG. 2-1 MR200

Emergency Procedure

In case of accident or machine failure:

- Immediately switch the machine off and disconnect the power supply
- Give first aid to injured persons
- Secure the place of the accident. (Leave the machine and workplace without changes)
- Report the accident or machine failure to superior or OHS inspector
- Leave the information on the machine: OUT OF ORDER, DO NOT START

Safety Labels Description

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

TABLE 2-1

Decal View	Decal No.	Description
() () () () () () () () () () () () () (096317	CAUTION! Read thoroughly the operator's manual before operating the Multi Saw. Observe all safety instructions and rules when operating the machine.
	099220	Close all guards and covers before starting the machine.



096316	Do not open or close the electric box when the switch is not in the "0" position.
096319	Always disconnect the power cord before opening the electric box.
099540	CAUTION! Toothed gear - keep persons away!
S12004G	Always wear safety goggles when operating the Multi Saw.



TABLE 2-1

S12005G	Always wear protective ear muffs when operating the Multi Saw.
501465	CAUTION! Always wear safety boots when operating the Multi Saw!
510080	CAUTION! Always wear protective gloves when operating the Multi Saw.
539211	Always wear protective apron when operating the Multi Saw.
501467	Lubrication point



	099504	Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.
CE	P85070	CE safety certification
08226	089296	Rotation direction
520097	S20097	Motor rotation direction.
	551701	Allowable and non-allowable shapes of sawn material



SECTION 3 MACHINE OPERATION



The most important elements of the Multi Saw Alignment and Operation



- 1. Upper spindle lock nut
- 2. Cut material thickness scale
- 3. Clamp box guide grease



1. Lower spindle lock nut



- 1.
- Upper spindle motor lock nut
- 2. Lower spindle motor lock nut



1. Upper spindle vertical adjustment bolt



1. Upper chain tensioner nut



1. Upper spindle bracket bolts





- 1. Clamp positioning adjustment bolt
- 2. Lower spindle positioning adjustment bolt
- 3. Upper spindle positioning adjustment bolt



1. Nut of the connector of the upper spindle support with the motor support



 Hole for the nut of the connector of the lower spindle support with the motor support



- 1. Tensioning nut of the indirect chain
- 2. Intermediate roller positioning bolt
- 3. Intermediate roller mounting bolts



1. Workpiece guide adjustment bolt



1. Pressure roller chain tensioning bolt



3.1 Intended Use

The multi saw machine type WD-200/240/M is used to cut boards and slats from prisms. Boards and slats thickness depends on spacers used between the saws. The multi saw machine is intended for sawing wood only. Cutting other materials is forbidden. The machine may be used in small, medium and even big wood processing industrial facilities.

3.2 Construction

Multi Saw Machine type WD-200/240/M consist of welded structural sections (body), upper clamp mechanism, infeed tunnel and protective guards.

Frame includes two segments welded to each other.

One of the segments is a main frame made of 350 mm channel bar and 18 mm steel sheet. Two spindle motors and two "floating" spindles with positioning mechanisms.

The other segment is made of 100 mm channel bar and it is a bearing base for five lower feed rollers and one row of anti-kickback fingers.

The upper clamp assembly consists of drive components, two clamping rollers, feed rollers positioning assembly, two rows of anti-kickback fingers and housing.

Board enter cover is bolted to the frame and it has two rows of anti-kickback fingers together with lifting handle and a frame that limits cut material height and width.

Protective covers:

- Transmission belts cover
- Feed rollers drive cover
- Saw rollers cover

Infeed and outfeed tables are optional equipment on customer's request.

3.3 Operation

To have large cutting height (200 mm) two saw spindles one over another are used. They are perpendicularly displaced one to the other. Both saw spindles are mounted on supports and they can be adjusted vertically. This allows to use two saws with different diameter (250 mm to 320 mm) depends on cut material thickness an also to adjust saw spindles that two motors are equally loaded. Clamp assembly consists of five lower rollers (fixed) and two upper rollers (lifted) with drive transmitted from motoreducer using chains and gears. Over the first lower roller there is a small pressure roller that allows feeding cut material.

Upper roller clamp adjustment - manually adjusted depending on cut material thickness.

3.4 Transport

Multi Saw is factory aligned. Infeed and outfeed tables are optional equipment. Use forklift or overhead crane (lifting capacity min 2500kg) to load or unload the machine. Minimum length of the forks - 2 meters. Slide the forks under the machine in places shown below.

See Figure 3-1



FIG. 3-1 MR200

3.5 Machine Installation

Set up the machine

Set up the Multi Saw on firm ground under roof (in screened place) or indoors.

Level the machine using the level (\sim 0,1/100mm) The measurement should be taken on the working table in lateral and lengthwise directions. The machine has four feet with holes for bolts which anchored the machine to the floor.



Connection to power supply system

Connect the machine to power supply system (3x400V, 50 Hz), using a conductor with polyvinyl insulation ($5x10mm^2$ dia.). The ground wire should be yellow-green colour.

Connect the wires to the L1, L2, L3, N, PE clamps located in control box.

Before power supply connection:

- Compability between machine electric system and power supply system in the workplace. Check working voltage and current frequency.
- Check electrical installation according to electrical diagram for given power supply voltage.
- Check electrical installation was not damaged during transportation. Replace damaged parts immediately. Inspect all wire connections. If it is necessary, tighten corresponding set screws.
- Inspect motor insulation condition (if it is not moistened), using the inductor with the 500V voltage. Measure the insulation resistance for each circuit and at the end for the entire frame of the machine.
- Depending on the supply conditions, measure the efficiency of fire protection.
- Route the supplying wires in accordance with safety rules.
- Have a qualified electrician install the power supply (according to EN 60204 Standard).



IMPORTANT! For correct machine electric devices operation, power supply voltage during motor start and the machine operation must be within ±10% of the rated voltage.



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

Recommendations for the preliminary start-up the Multi Saw

Before start-up the machine read this manual, especially section IV. When all recommendations are met the Multi Saw can be started (idle run). The idle run should last about 1 hour. If during this time saw shaft bearings do not overheat, the test run is successful.

Before starting the work it is required to:

- Remove all wooden transport blocks located inside the machine.
- Install required number of saws with suitable spacer bushings (both saw spindles should be equal).
- Use special wrenches to tighten circular saws and spacers.
- Set the distance between upper and lower saws (min. 2mm). To do this, use the special wrench 46 to loosen saw spindle mounting nuts and motor locking nuts. Make the adjustment with special wrench 30 mm. When adjustment is finished, tighten the nuts.

- Use 30 mm special wrench to set the upper feed rollers in correct position, depending on cut material thickness. The feed rollers should be about 10 mm under the cut material top surface (use the scale located on the support to set the cut material thickness).
- Connect the machine to the extractor system with the capacity about 2900m³/h. The machine has two extraction pipes with 150 mm diameter.
- Illuminance at operator's position must be 300lx.¹



CAUTION! Do not set the upper feed rollers more than 15 mm below the cut material top surface. Failure to do so may result in machine damage.

3.6 Multi Saw operation

Start up

Before starting the work, choose the proper saw diameter depending on cut material thickness, to make it possible to cut selected material thickness plus additional min. 20 mm. Next, make the machine adjustment and alignment according to Section 8 of this manual. Adjust the clamp in position suitable for cut material thickness (use the scale - fig. 2, item 18). To do this put the 30mm special wrench on the roller clamp adjustment bolt (fig. 2 item 16). The machine is equipped with cut material guide, which may be used on the bed (fig. 1 item 1) and fixed in proper position with clamp bolt. The guide must be parallel to the saws. To adjust the guide, loosen the front bolt located on the left side of the bed (fig. 1 item 2) and set the bed in correct position (guide plate and saws should be parallel). Tighten the front bolt.

When the guide plate is not used the bottom saw spindle bearing sleeve should be at the same height or lower than the feed rollers in the machine table. The Multi Saw can be equipped with infeed and outfeed tables, which make material feeding and off-bearing easier.

Check electric shock protection before first start of the machine and after each reconnection power to the machine. When the saws are mounted and the machine is properly adjusted:

- Check if covers are properly mounted and control switches location
- Open the padlock on the main switch.
- Turn the main switch on (POWER ON light is on).
- If the EMERGENCY light is on check emergency switches located on the control box and on the frame. Also check if covers are properly mounted and motor overload switches are not tripped. If red light is still on, reset the covers interlock using COVERS LOCK switch. The red light is off when all control and protection elements are in proper position.
- Use START-BOTTOM DRIVE and START-UPPER DRIVE buttons (or star-delta switch) to start saw spindles (SAW DRIVE lights will on).

1 The light source can not cause stroboscopic effect.



- Then use the FEED RATE knob to increase the feed rate as desired.
- Set the FORWARD/BACKWARD switch in FORWARD position.
- Use the FEED START switch to start the feed.
- Use the FEED STOP switch to stop the feed.
 - **CAUTION!** The feed direction may be changed when feed rollers are stopped. It is possible to start the feed backward when saw spindle drive is off and anti-kickback fingers are lifted. To do this set the FORWARD/BACKWARD switch in BACKWARD position and pressing the switch FEED START (or pressing POWER ON ans FEED START buttons at the same time, if machine is equipped onstar-delta switches).

Operation

Multi Saw should be operated with at least 3 persons: One person feed the material to board enter cove and operate the control pane. Two persons receiving the sawed material, should be next to outfeed table. All of them should stay at the left side of the machine.

Only persons who have read and understood the entire operator's manual and were trained in OHS rules should operate the Multi Saw. The machine should be operated only if all its kinematic system works properly.

It is not allowed to operate the machine without covers and it is forbidden to make any adjustments when the machine drives are on. Do not use the machine without the chip extraction system connected. Two ammeters for saw spindle motors are located on control box and allows to constant control machine load.

Pay particular attention for operators' safety. Observe all safety instructions also these included in this manual. Maintain a clean and clear path for all necessary movement around the Multi Saw. Correctly stack all cut material and any sawing by-products generated during processing. To ensure correct cutting, the material to be cut must be properly prepared (has to get equal height, straight and parallel surfaces and be free of impurities (soil, sand, foreign matters e.g. nails, chips etc.).



IMPORTANT! Only one workpiece can be feed to the machine at the same time. Cutting cracked wood, with fuzzy grain or faces that are not straight or not correctly cleaned from branches may result in damage to the saws and lower extraction pipe can be blocked too fast.



CAUTION! Side guards are mounted with screws and protected against accidental opening with interlocked limit switches connected to tachometer. It allows to open the side guards only when spindles are completely stopped. If limit switches not work properly, immediately stop the machine operation until the problem is corrected. Few times a day control the anti-kickback fingers, especially when cutting wood with a high resin content. If it is necessary, stop the work, clean anti-kickback fingers from resin and other debris, lubricate them (aerosol will be the best). If anti-kickback fingers work properly, back to work.

Machine stopping

To stop the Multi Saw:

- Stop the feed using FEED STOP button
- Press the STOP-LOWER DRIVE button (pressing only STOP-UPPER DRIVE button will stop only upper spindle). If machine is equipped with star-delta button - set the switches in ZERO position.
- Pushing the emergency switch (red knob) will stop the machine.
- Turn the MAIN SWITCH to 0 position
- In case of emergency, stop the machine using emergency switch (red knob) located on control panel and on the machine frame on the outfeed side.



CAUTION! Engage the feed forward and check feed rollers rotation direction. If the rotation direction is incorrect, invert the phases in the phase inverter in the power socket. When sawing is finished, shut down the machine and padlock the control box.



SECTION 4 MAINTENANCE AND ALIGNMENT

4.1 Tools:

- Spindle nut driver
- 46 mm Spindle special wrench
- 30 mm Special wrench for supports and clamp roller adjustment
- 46 mm Flat wrench (motors and supports blocking)
- 19 mm Special wrench

4.2 Maintenance

Every day clean the machine from to remove sawdust and chips, Every 12 month lubricate all chains submerging them in heated oil with graphite grease. Once a month use *kt13* grease to lubricate tensioner hinge, clamp assembly bolts, support bolts and clamp guides.

There are seven lubrication points. Two lubrication points: support bearing adjustment bolts lubrication; two lubrication points: clamping cover bolts lubrication; two lubrication points: clamping cover guide rails lubrication; one lubrication point: on upper intermediate chain tensioner hinge. Use grease to lubricate these points once a month or more often if needed.

4.3 Multi Saw adjustment

Saw spindle axis vertical alignment is made at the factory

There is no need to align it during machine operation. Readjustment of the saw spindles alignment may be required at the significant wear of the machine or if the spindle brackets were removed from the machine.

Aligning the upper to lower saw spindle in one cutting plane

To achieve cutting in one plane for upper and lower saws, the upper spindle must be aligned to the lower one through the open door on the pulleys side. To do this, loosen the upper spindle bracket bolts and use the adjustment bolt to move the upper saw spindle in required direction until the upper saws will be exactly in the same plane as corresponding lower saws. After adjustment, retighten spindle bracket bolts.

Setting the saw spindles position depending on the workpiece thickness.

The Multi Saw has two "floating" spindles that allow stead loading of the two motors, independently on the workpiece thickness. First it is required to select the saw diameter suitable to the workpiece thickness, which must ensure cutting at least half of the workpiece thickness plus 10 mm. When the selected saw diameter ensures cutting for more than half of the workpiece thickness plus 10 mm, the lower spindle must be lowered to allow cutting half of the desired thickness. To do this, use the plat wrench 46mm to loosen the lower saw spindle lock nut and motor lock nut. Next, use the special wrench 30 mm on the adjustment bolt to lower or rise motor and the lower saw spindle to the desired height.



Tighten previously loosened nuts. The saws must be mounted according to section **"Mounting the saws on the spindle".** Next, set the upper saw spindle in the correct position. Adjust the upper saw spindle position in the same way as the lower saw spindle, to such position that the material will be cut at full thickness. Be sure that the distance between upper saw teeth top and the lower saw teeth top should be at least 2 mm. Too large distance between upper and lower saws may cause that the cut is too short.



CAUTION! During vertical adjustment of the saw spindles, pay particular attention not to cause that the upper and lower saws teeth hit each other, as it will damage the saws.

Mounting the saws on the spindles

Before mounting the saws prepare the spindles, saws, spacers and if necessary saw sleeves cleaning them carefully from dust and other impurities. Select suitable saw, depending on cut material thickness. Minimal saw diameter is 200 mm and maximal - 300 mm. Mount the saws set with spacers on the spindles or sleeves and after the last saw mount spacer/s to fill not threaded part of the saw spindles or sleeves. Next, use the special wrenches to tighten saws on the spindles or sleeves mount the saw on the sleeves in the workshop using the tool with vise to fix the saws.



CAUTION! Make sure that nuts on the saw spindles are properly tightened. Too loose nuts tightening may cause serious damage to spindles and saws.

Top blade shaft nuts are right hand thread and bottom blade shaft nuts are left hand thread.

In a single set use only saws with the same parameters and which meet the requirements of EN847-1:1997 Standard (1 set is a set of lower and upper shaft saws). It is recommended to use saws in a single set not only with the same parameters but also from the same producer and with the same degree of wear.

Saw spindle drive V-belts tensioning

Open the belt side cover door, loosen the support connector nut using the special wrench 19mm, loosen spindle support lock nut using special wrench 30 mm and turn right the support adjustment bolt to tension the saw spindle drive V-belts. Next tension the nuts and close the side cover.

Feed roller chains tensioning

Check the chain tension of the chain drive after every 100 hours of operation. There are five chains on the machine. If they are overtensioned, it is necessary to tension the chains properly.

- a) Feed drive main chain.
- b) Feed drive indirect chain.
- c) Upper feed roller drive chain indirect.
- d) Infeed feed roller drive chain.
- e) Outfeed feed roller drive chain.



Feed drive main chain - To tension the main chain, use the 19 mm wrench and tighten the nut through the hole in the side cover to tension the chain. Check the chain tension by hand (chain deflection should be from 10 to 15 mm).

Feed drive indirect chain - Open chain cover. Loosen intermediate roller mounting bolts and use M10 nut to tension the chain. Use M10 bolt on the right side to level the intermediate roller. Retighten the intermediate roller mounting bolt.

Upper feed roller drive chain (indirect) - this chain does not need to be tensioned. If the chain is overtensioned or worn, shorten the chain or replace it for the new one.

Infeed and outfeed feed roller drive chain - Loosen upper feed roller mounting bolts and properly tension both chains using adjustment bolts. Lock the adjustment bolts and retighten mounting bolts.



CAUTION! Do not overtension the chains and do not work with too loose chains can cause excessive chains and sprockets wear and may result in serious damage the machine.

Guide.

The Multi Saw is equipped with workpiece guide which can be adjusted along saw spindles. Before start to work, align the workpiece guide parallel to saw planes using M12 bolt located on the front part of the guide bracket. It is possible to work without workpiece guide, but only when the lower saw spindle is lowered so its bearing sleeve is at the same height or lower than the lower feed rollers.

4.4 Mini-Chipper (optional equipment)

The Multi Saw is equipped with mini-chipper located directly below lower saw spindle. Mini-chipper crashes wood byproducts, which together with sawdust are removed through the lower sawdust removal pipe.

This prevents sawdust chute impeller vanes damage and getting blocked of sawdust removal pipe.

Once a month lubricate the V-belts tensioner hinge with grease (e.g. Łt-43) using the oiler.

When knives are dull, dismount them and change their positions so the sharp edge replace dull one. Distance between fixed knife and knives mounted on cutter should be 0.1-0.2 mm. Remember to retighten all knives mounting bolts securely to avoid moving the knife and damage to the machine.

CAUTION! Before starting the machine inspect the chipper for wood chips or other objects which can stuck the cutter. Pay particular attention not to let any object, especially a metal one, such as a key, spacers, etc., get into the chipper while the machine is working, because it may seriously damage the machine.

To ensure proper chipper operation, capacity of the chip extraction system must be about 3600 m^3/h .

4.5 Safety Devices Inspection (Only CE Version¹)

MR200 Multi Saw Safety Devices Inspection

See Figure 4-1



FIG. 4-1

Before beginning a shift, inspect the following safety devices of the MR200 Multi Saw:

- E-Stop button circuit control box
- E-Stop button circuit outfeed table
- E-Stop button circuit safety fence
- E-Stop button circuit anti-kickback fingers
- E-Stop button circuit belt transmission
- E-Stop button circuit saw spindle cover
- 1 Marking of products sold within European Economic Area



1 Inspecting the E-Stop button circuit - Control Panel

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

2 Inspecting the E-Stop button circuit - Outfeed Table

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

3 Inspecting the E-Stop button circuit - Security Fence

- Start the main motor.
- Use board to push the safety fence
- The motor should be stopped.
- To start the motor, press the START button. It should not be possible to start the motor.
- Move the board back.
- The motor power feed should remain stopped.

4 Inspecting the E-Stop button circuit - Anti-kickback fingers

- Open the cover on the saw side.
- Elevate the recoil anti-kickback fingers lever.
- Reset the safety circuit with the RESET button.
- To start the motor, press the START button. It should not be possible to start the motor.

5 Inspecting the E-Stop button circuit - Belt transmission cover

Start the main motor.

- Open the belt transmission cover
- The motor should be stopped.
- To start the motor, press the START button. It should not be possible to start the motor.
- Close the belt transmission cover.
- The motor should remain stopped.

6 Inspecting the E-Stop button circuit - saw spindle cover

- Start the main motor.
- Open the saw spindle cover.
- The motor should be stopped.
- To start the motor, press the START button. It should not be possible to start the motor.
- Close the saw spindle cover.
- The motor should remain stopped.



SECTION 5 SPECIFICATIONS

5.1 MR200 Multi Saw Overall Dimensions

See Table 5-1 The overall dimensions are listed in the table below.

Weight	2000 kg
Height	1800 mm
Width	1100 mm
Length	1400 mm

5.2 MR200 Multi Saw Specifications

See Table 5-2 See the table below for technical data on the MR200.

	Motor Specifications
Saw drive motor voltage and power	3x400V 50Hz 2x30kW
Saw drive motor rotational speed	2900 r.p.m. at 50Hz
Spindle with saws rotational speed:	3600 r.p.m. at 50Hz
Feed drive motor voltage and power	3x400V 50Hz 2x30kW
Feed drive motor rotational speed	1450 r.p.m. at 50Hz
Linear feed speed	1.5-15m/min

See Table 5-3 Saws and cut material specifications

	specifications
Circular saw diameter	200-315mm
Saw spindle diameter 60mm	
Maximum number of circular saws 10 pcs per spine	
Maximum material height	200mm
Minimum material height	30mm
Maximum material width	540mm
Cutting Capacity	Up to 10m ³ /h



See Figure 5-1 Allowable and non-allowable shapes of sawn material



TABLE 5-4

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

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

^{3.} The total value of hand-arm vibration the operator may be exposed to does not exceed 2.5 m/s². The highest root mean square value of weighted acceleration to which the whole operator's body is subjected does not exceed 0.5 m/s^2 .



5.3 Sawdust Extractor Specifications

See Table 5-5 See the table below for specifications of a sawdust extractor that can be used with the EG800 Multi Saw.¹

Airflow	3600 m ³ /h
Inlet diameter	2x 150 mm
Motor Power	2x 1,5 kW
Number of sacks	2 pcs
Sack capacity	0.25 m ³
Pressure drop	1,5 kPa (0.22 psi) ¹
Recommended conveying air velocity in the duct	20 m/s

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

TABLE 5-5

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

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

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



SECTION 6 REPLACEMENT PARTS

See figure 6-1















6

See figure 6-5

























See figure 6-11

































6

Replacement Parts List

Item	Name	Qty.	Standard or drawing number
1	Multi saw frame	1	WD 200-240-01
2	Bracket, Magnetic Shutoff Sensor Mount	2	WD 200-240-02
3	Bolt, M12x35	4	PN-88/M 8210
4	Motoreducer	1	
5	Nut, M12	12	PN-ISO 4033
6	Washer, M12 Split	4	PN-77/M 820087
7	Bolt, M12x40 Hex Head Zinc	4	PN-88/M 8210
8	Sprocket, 3/4" z=13	1	WD 200-240-03
9	Key, 10x10	1	
10	Bracket, Sleeve	4	WD 200-240-04
11	Bearing, 6012 2RS	8	PN-85/M 86100
12	Ring, W95 Retaining	4	PN-81/M 85111
13	Bolt, M10x35 Hex Head	20	PN-88/M 8210
14	Ring, 95x60x10 Sealing	2	PN-88/M 73067
15	Pulley	4	
16	Sleeve, Roller Shaft Pivot	2	WD 200-240-06
17	Nut. M10	4	PN-ISO 4033
18	Washer, M10 Split	8	PN-77/M 820087
19	Washer, M10	12	PN-78/M 82005
20	Key. 8x8	2	
21	Shaft, Upper Spindle	1	WD 200-240-07
22	Ring, Pressure	4	WD 200-240-08
23	Bearing Small		WD 200-240-09
24	Bearing, Small	_	WD 200-240-10
25	Nut. Upper Spindle Shaft	1	WD 200-240-11
26	Shaft Lower Spindle	1	WD 200-240-12
20	Nut Lower Spindle Shaft	1	WD 200-240-13
28	Ring Retaining	-	WD 200-240-14
20	Bolt M12x95	5	PN-88/M 8210
30	Ring W62 Retaining	30	PN-81/M 85111
31	Lid	-	WD 200-240-15
32	Housing 6206 2RS Bearing	15	WD 200-240-16
33	Bearing 6206 2RS	15	PN-85/M 86100
34	Ring, 62x35x7 Sealing	30	PN-88/M 73067
35	Roller Feed	3+1	WD 200-240-17
36	Key 8x8	-	
37	Sprocket 3/4" Z=11	5	WD 200-240-18
38	Connector Extension	1	WD 200-240-19
39	Extension, Feed Shaft	1	WD 200-240-20
40	Ring, W72 Retaining	2	PN-81/M 85111
41	Lid Bearing	1	WD 200-240-21
42	Nut. M10	10	PN-ISO 4033
43	Bearing 6007 2RS	2	PN-85/M 86100
44	Shaft Feed	1	WD 200-240-22
	Shurty I Cou	1	



45	Housing, Bearing	1	WD 200-240-23
46	Ring, 62x35x7 Sealing	4	PN-88/M 73067
47	Sprocket, 3/4" z=12	2	WD 200-240-24
48	Gear Wheel	1	WD 200-240-25
49	Ring, 52x35x7 Sealing	4	PN-88/M 73067
50	Ring, W62 Retaining	4	PN-81/M 85111
51	Bearing, 6205 2RS	12	PN-85/M 86100
52	Bolt, M10x50	4	PN-88/M 8210
53	Bracket,	2	WD 200-240-26
54	Bushing	1	WD 200-240-27
55	Shaft, Drive	5	WD 200-240-28
56	Plate, Motor Support	2	WD 200-240-29
57	Top, Table	2	WD 200-240-30
58	Sprocket, 5/8" z=15	3	WD 200-240-31
59	Screw, Tr. 24x5 Acme	2	WD 200-240-32a /b
60	Washer, M30	4	PN-78/M 82005
61	Nut, M30	4	PN-86/M 82144
62	Plate, Support	2	WD 200-240-33
63	Ring	2	WD 200-240-34
64	Shaft, Roller		WD 200-240-35
65	Scraper	2	WD 200-240-36
66	Washer	2	WD 200-240-37
67	Fitting, M10x1 Straight Grease	6	
68	Bolt, M6x25	40	PN-88/M 8210
69	Screw, M8x20 Hex Socket Head Cap	3	PN-87/M 82302
70	Plate, Support	2	WD 200-240-38a /b
71	Bearing, 51 102	2	PN-86/M 86260
72	Roller, Guide	1	WD 200-240-39
73	Nut, Special	2	WD 200-240-40
74	Bolt, M8x28	36	PN-88/M 8210
75	Washer, M8 Split	32	PN-77/M 820087
76	Mounting, 6204 2RS Bearing	2	WD 200-240-41
77	Bolt, Height Adjustment	2	WD 200-240-42
78	Bearing, 6205 2RS	2	PN-85/M 86100
79	Ring, W52 Retaining	2	PN-81/M 85111
80	Nut, Special	2	WD 200-240-43
81	Seat, Acme Screw	2	WD 200-240-44
82	Bracket	2	WD 200-240-45
83	Key, 14x9	2	-
84	Cover	2 sets	-
85	Nut, Acme	4	WD 200-240-46
86	Bracket	2	WD 200-240-47
87	Bushing	2	WD 200-240-48
88	Bushing, Slide	4	WD 200-240-49
89	Bearing, 6003 2RS	6	PN-85/M 86100
90	Bracket	2	WD 200-240-50
91	Bearing, Small	-	WD 200-240-51
92	Ring, W35 Retaining	4	PN-81/M 85111
93	Ring, 35x25x7 Sealing	4	PN-88/M 73067



94	Plate Support	2	WD 200-240-52
95	Bolt M16x95	3	PN_87/M 82302
96	Washer M16	4	PN-78/M 82005
97	Lever	1	WD 200-240-53
98	Shaft Anti-kickback fingers	2	WD 200-240-54
99	Shaft Anti-kickback fingers	2	WD 200-240-54/1
100	Finger Anti-kickback	-	WD 200 240-55
101	Bushing, Spacer	-	WD 200-240-56
102	Lever	1	WD 200-240-57
103	Top. Table	2	WD 200-240-58
104	Shaft, Anti-kickback fingers	1	WD 200-240-59
105	Shaft, Anti-kickback fingers	1	WD 200-240-60
106	Washer, M8	10	PN-78/M 82005
107	Finger. Anti-kickback	-	WD 200-240-61
108	Finger, Anti-kickback	-	WD 200-240-62
109	Bushing, Spacer	1	WD 200-240-63
110	Plate, Bracket	1	WD 200-240-64
111	Lever	1	WD 200-240-65
112	Shaft, Anti-kickback fingers	1	WD 200-240-66
113	Bolt, M10x95	2	PN-87/M 82302
114	Spring	2+2	-
115	Arm, Upper Roller	2	WD 200-240-67
116	Sprocket, 5/8" z=12	4	WD 200-240-68
117	Ring, 52x32x7 Sealing	10	PN-88/M 73067
118	Ring, W52 Retaining	12	PN-81/M 85111
119	Bushing, Spacer	8	WD 200-240-69
120	Bushing, Bearing	2	WD 200-240-70
121	Spacer, Bearing Bushing	2	WD 200-240-71
122	Shaft, Bearing Bushing	2	WD 200-240-72
123	Sprocket, 3/4" z=12	3	WD 200-240-73
124	Bracket	1	WD 200-240-74
125	Shaft, Drive	2	WD 200-240-75
126	Shaft, Lower Drive	1	WD 200-240-76
127	Nut, M16	4	PN-ISO 4033
128	Washer, M16	2	PN-78/M 82005
129	Bearing, 6001 2RS	4	PN-85/M 86100
130	Sprocket, 5/8" z=11	2	WD 200-240-77
131	Gear Wheel	1	WD 200-240-78
132	Sprocket 5/8" z=10	2	WD 200-240-79
133	Bushing, Spacer	2	WD 200-240-80
134	Ring, W28 Retaining	4	PN-81/M 85111
135	Washer, M12	4	PN-78/M 82005
136	Ring, 28x16x7 Sealing	2	PN-88/M 73067
137	Bearing 6001 2RS	4	PN-85/M 86100
138	Ring, W28 Retaining	4	PN-81/M 85111
139	Bushing, Spacer	2	WD 200-240-81
140	Bushing, Spacer	3	WD 200-240-82
141	Block	4	WD 200-240-83
142	Fitting, M6x1 Straight Grease	4	

142	Cover Acres Screw	2	WD 200 240 84
143	Plack Slide		WD 200-240-84
144	$\frac{\text{Diock, Slide}}{\text{Polt } M10x25}$	4	DV 88/M 8210
145	Nut Iom	4	WD 200 240 86
140	Bushing Clamping		WD 200-240-80
14/	Leteh Mondrol	<u> </u>	WD 200-240-87
140	Ding 40x28x7 Scaling	1	- DN 88/M 72067
149	Proclect	2	WD 200 240 88
150	Diacket Descring 6204 2DS	2	DN 85/M 86100
151	Cuide Clamp	2	WD 200 240 80
152	Koy 10v9	2	WD 200-240-89
153	Nut Pushing	$\frac{2}{2}$	- WD 200 240 00
154	Duching Spacer	2	WD 200-240-90
155	Sloove Sheft	2	WD 200-240-91
150	Key 14v0		WD 200-240-92
157	$\frac{\text{Key}, 1439}{\text{Dolt} M5x10}$	4	- DNI 97/M 92202
138	Boll, MIX10	20	PIN-87/IVI 82302
139	Cover, Adjustment System		WD 200-240-95
160	Shaft, Anti-Kickback lingers	1	WD 200-240-94
101	Finger, Anti-Kickback	-	WD 200-240-95
162	Bracket, Clamp Guide Mount	10	WD 200-240-96
163	Bolt, M10x30	10	Din 912
164	Bracket, Anti-kickback fingers	1	WD 200-240-97
165	Pin, Ø6 Roll	2	ISO 8752
166	Pin, Ø5 Roll	4	ISO 8752
167	Bracket, Anti-kickback fingers	1	WD 200-240-98
168	Washer, M12	20	PN-78/M 82005
169	Ring, 52x25x7 Sealing	20	PN-88/M 73067
170	Ring, W52 Retaining	2	PN-81/M 85111
171	Bushing, Tensioner	1	WD 200-240-171
172	Nut, Tensioner Bushing	1	WD 200-240-172
173	Plate, Spring	4	WD 200-240-173
174	Screw, M8x10	1	Din 912
175	Screw, M5x10	2	Din 912
176	Bushing, w/Felt Insert	2	WD 200-240-99
177	Washer, Ø10/ Ø50/5 Special	2	WD 200-240-100
178	Bushing, Ø42/ Ø48/10	1	WD 200-240-101
179	Bushing, Ø8/ Ø32/2	1	WD 200-240-102
180	Plate	1	WD 200-240-103
181	Bracket	1	WD 200-240-104
182	Plate, Latch	1	WD 200-240-105
183	Latch	1	WD 200-240-106
184	Sprocket, Latch	1	WD 200-240-107
185	Nut, M12 Nylon Lock	1	DIN 985
186	Nut, M14	1	PN-ISO 4033
187	Ring Special	1	WD 200-240-108
188	Protection, Elesa-ganter	1	-
189	Bolt, M6x12	2	PN-88/M 8210
190	Bolt, M10x90	4	PN-88/M 8210
191	Bolt, M5x6,8 Hex Socket Head Cap	4	ISO 10642



192	Bolt, M6x55	2	PN-88/M 8210
193	Bar, Flat	1	-
194	Bar, Flat	1	-
195	Bar, Flat	1	-
196	Bar, Flat	1	-
197	Bushing. Ø25/M10 L=45 Spacer	2	-
198	Bolt, M6x55 Hex Socket Head Cap	2	PN-88/M 8210
	Drive Belt, Lower Shaft HB53 17x1650,	5	Part #565920
	30kW		
	Drive Belt, Upper Shaft HB53 17x2050,	5	Part #565921
	30kW		
	Mini-Chipper Drive Belt HB53 17x1420	2	Part #565922
	Pulley, Blade Motor SPB180x5 3020,	2	Part #565923
	30kW		
	Pulley, Blades Shaft: SPB 150x5 2517,	2	565924
	30kW		
	-Pulley, Mini-Chipper: SPB 180x2 2517	1	565925
	Pulley, Mini-Chpper Motor SPB 132x2	1	565929
	Taper Lock, Motor Pulley – TB3020/55	2	565926
	Taper Lock, Blade Shaft Pulley	2	565927
	Taper Lock Mini-Chipper Shaft Pulley-	1	565928
	TB2517/35		
	Bushing, Split Mini-Chipper Drive	1	565930





REF.	DESCRIPTION (Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	DECAL KIT, MR200	545001		
1	DECAL,HIGH VOLTAGE INSIDE THE ELECTRIC BOX (PICTOGRAM)	096316	1	
2	DECAL, REMOVE THE PLUG BEFORE OPENING THE BOX (PICTOGRAM)	096319	1	
3	DECAL,TOOTHED GEAR - KEEP PERSONS AWAY! (PICTOGRAM)	099540	1	
4	DECAL, SAWMILL COVERS CAUTION	099220	2	
5	DECAL, LASER BEAM WARNING (PICTOGRAM)	099504	1	
6	DECAL, "KEEP A SAFE DISTANCE" (PICTOGRAM)	099221	6	
7	DECAL, EYE PROTECTION WARNING (PICTOGRAM)	S12004G	1	
8	DECAL, EAR PROTECTION WARNING (PICTOGRAM)	S12005G	2	
9	DECAL, USE SAFETY BOOTS (PICTOGRAM)	501465	1	
10	DECAL, ALWAYS WEAR PROTECTIVE GLOVES WHEN OPERATING THE EDGER!	510080	1	
11	DECAL, ALWAYS WEAR PROTECTIVE APRON WHEN OPERATING THE EDGER!	539211	1	
12	DECAL, READ OPERATOR'S MANUAL (PICTOGRAM)	096317	1	
13	DECAL, KICKBACK HAZARD WARNING (PICTOGRAM)	524992	1	
14	DECAL, FALLING DOWN COVER WARNING (PICTOGRAM)	545704	1	
15	DECAL, SAW DIMENSIONS	545002	1	
16	DECAL, CE SAFETY CERTIFICATION	p85070	1	
17	SERIAL NUMBER		1	
18	DECAL, ALLOWABLE AND NON-ALLOWABLE SHAPES OF SAWN MATERIAL	551701	1	
19	DECAL, REVOLUTIONS DIRECTION - RIGHT	523214	1	
20	DECAL, REVOLUTIONS DIRECTION - LEFT	089296	1	
21	DECAL, ADJUSTING THE HEIGHT OF THE UPPER SHAFT	585902	1	
22	DECAL, ADJUSTING THE HEIGHT OF THE LOWER SHAFT	585901	1	
23	DECAL, ADJUSTING THE HEIGHT OF THE UPPER BODY	585903	1	
24	DECAL, ADJUSTING THE TURNBUCKLE	585904	2	
25	DECAL, ADJUSTING THE SELF-TENSIONER	584036	1	



SECTION 7 CHIPPER

7.1 Chipper Assembly

MR200EH80S-540_002_B MR200EH80S-540_MANUAL



REF	DESCRIPTION (u indicates parts available in assemblies only)	PART #	QTY	
1	CHIPPER WLDMT W/PLATE	583122-1	1	
2	CHIPPER ASSEMBLY See Section 7.2	559652	1	
3	CHIPPER SHAFT ASSEMBLY See Section 7.3	559699	1	
4	WASHER 10,5 ZC DIN 126 ISO 7091	F81055-1	12	
5	BOLT, M10X35-8.8 HEX HEAD FULL THREAD ZI	F81003-17	4	
6	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
7	CLAW COUPLING ASSEMBLY HABERKORN 38/45 G See Section 7.4	559712	1	
8	KEY, AB 10X8X45	559716	3	
9	BOLT, DIN933-M10X30-8.8-A2E HEX HEAD	F81003-111	4	
10	CHUTE WELDMENT, SAWDUST WLDMT/PTD - COMP	559721-1	1	
11	WASHER, 8.4 FLAT ZINC	F81054-1	9	
12	WASHER 8,2 ZC SPRING LOCK DIN 127	F81054-4	15	
13	BOLT, M8X20-8.8 HEX HEAD FULL THREAD ZIN	F81002-75	7	
14	TUBE, FI150 SAWDUST OUTLET	559723-1	1	
15	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	1	
16	BOLT, M8X45-8.8 HEX HEAD FULL THREAD ZIN	F81002-14	1	
17	PLATE, CHIPPER SAWDUST 1	559829-1	1	
18	PLATE, CHIPPER SAWDUST 2	559830-1	1	
19	PLATE, CHIPPER SAWDUST 3	559831-1	1	
20	PLATE, CHIPPER SAWDUST 4	559832-1	1	
21	BOLT, M8X16-8.8-B HEX HEAD FULL THREAD Z	F81002-20	8	



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REF	DESCRIPTION (u indicates parts available in assemblies only)	PART #	QTY	
22	SCREW, M8X16 BN 11252 "BOSSARD" BUTTON H	F81001-131	16	



7.2 Chipper Assembly

559663_001 559663_MANUNAL



REF.	DESCRIPTION (* indicates parts available in assemblies only)	PART #	QTY	
-	CHIPPER ASSEMBLY	559652	1	
1	SHAFT WELDMENT, CHIPPER	559661-1	1	
2	KNIFE	559662	7	
3	SCREW, M10X25 8.8 HEX SOCKET HEAD CAP ZINC	F81003-32	7	
4	BEARING, 6309 2RSR	096107	2	
5	COVER, CHIPPER	565992-1	1	
6	RING, W100 INSIDE RETAINING	F81090-10	3	
7	HOUSING, BEARING	559665-1	1	
8	COVER, CHIPPER 2	559668-1	1	
9	PLATE, CHIPPER MOUNT	559669	1	
10	WIPER, CHIPPER FELT	559670	1	
11	BOX WELDMENT, CHIPPER	559674-1	1	
12	SCRAPER	559682	1	
13	PLATE, COVER	559689	1	
14	SCREW, M5X10 FLAT SOCKET HEAD DIN 7991	F81001-128	1	
15	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	14	
16	BOLT, ISO 4017-M10X20-8.8-A2E HEX HEAD	F81003-53	14	
17	WASHER, 8.4 FLAT ZINC	F81054-1	2	
18	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	2	
19	BOLT, M8X20-8.8 HEX HEAD FULL THREAD ZINC	F81002-75	2	
20	SCREW, ISO 4762 M12X40-8.8-A2E HEX SOCKET HEAD CAP	F81004-101	4	
21	SIMERING 70X100X10	565990	2	

7.3 Chipper Shaft

559699_00 559699_MANUAL		4
	16 17	3
12 19 14		<u>ۇ</u>

REF.	DESCRIPTION (* indicates parts available in assemblies only)	PART #	QTY	
-	CHIPPER SHAFT ASSEMBLY	559699	1	
1	BASE, CHIPPER DRIVE SHAFT HOUSING	559697-1	1	
2	TENSIONER WELDMENT, BELT	559695-1	1	
3	SHAFT, CHIPPER DRIVE	559700	1	
4	BEARING, 6208-2RS1 SKF	555583	2	
5	FITTING, M6 TYPE A STRAIGHT GREASE	086280	1	
6	RING, Z 64 OUTSIDE RETAINING	559702	2	
7	RING, W80 INSIDE RETAINING	F81090-25	2	
8	SIMERING 80X40X10	559703	2	
-	BELT TENSION WHEEL ASSEMBLY	559707	1	
9	PULLEY, BLADE TENSION	559704	1	
10	BEARING, 6206 2RSR P6 ROLLING (FAG, NSK, SKF)	100787	2	
11	PIN, TENSIONER WHEEL	559706	1	
12	COVER, BEARING	559585	1	
13	RING, 62W INSIDE RETAINING	F81090-1	2	
14	BUSHING, TENSIONER SPACER	559708	1	
15	SIMERING 62X35X7	559705	1	
16	WASHER, 17 FLAT ZINC	F81058-1	1	
17	SCREW, ISO 4017-M16X35-8.8-A2E HEX HEAD	F81006-45	1	



7.4 Coupling



REF.	DESCRIPTION (* indicates parts available in assemblies only)	PART #	QTY	
-	Claw Coupling Assembly Haberkorn 38/45 GRIMP	559712	1	
1	HUB, COUPLING	559711	1	
2	INSERT, CLAW COUPLING	559713	1	
3	HUB, COUPLING B	565979	1	
4	SCREW, M10X20SET	F81003-74	2	