

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 | Přiručka uživatele

Retain for future use Zachować do przyszłego użytku Coxpahute dna nocnedymiero n c n o n b a o a a h n a A conserver pour une utilisation future Für zukünftige Benutzung aufbewahren B e h o i d for senere bru k Sällytänämä käytöohjeet tulevas tarvetta marten Opbevar manualen til fremtidig brug Bewaren voor gebruik in de toekomst Conservare il presente manuale a luso futuro Pästrati acest manual pentru utilizare viltoare Conservar para futuras consultas Behall för framtida användning Uchovejte pro další použití Hranite za prihodnjo uporabo

# **Horizontal Resaw HR500**

## Safety, Operation, Maintenance & Parts Manual

HR500E11S	rev. B2.00
(HR1-6E11S)	rev. B2.00
HR500E15S	rev. B2.00
(HR1-6E15S)	rev.B2.00



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

Form #1006

This is the original language for the manual.

General Contact Information				
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<b>SECTION</b>	1 SAFETY	1-1
1.1	Safety Symbols1-1	
1.2	Safety Instructions1-2	
	Observe Safety Instructions	
	Wear Safety Clothing	
	Keep Resaw And Area Around Resaw Clean	
	Dispose Of Sawing By-Products Properly	
	Check Resaw Before Operation	
	Keep Persons Away	
	Keep Hands Away	
	Use Proper Maintenance Procedures	
	Keep Safety Labels In Good Condition	
SECTION	2 OPERATION	2-1
2.1	Control Overview2-1	
2.2	Resaw Setup2-3	
	Electrical Requirements (US Version Only)	
2.3	Replacing The Blade2-13	
2.4	Tensioning The Blade2-15	
2.5	Tracking The Blade2-16	
2.6	Saw Head Height Adjustment2-17	
2.7	Tilt2-20	
2.8	Guide Fence Adjustment2-21	
2.9	Blade Guide Arm Adjustment2-22	
2.10	Machine Start2-23	
2.11	Water Lube Operation2-27	
	Standard Lube System (Supplied from a Water Supply Network)	
	Optional Lube System (Supplied from Water Tanks)	
2.12	Operation Procedure	
SECTION	3 MULTISETWORKS OPERATION (OPTIONAL EQUIPMENT)	3-1
3.1	General Information	
3.2	Functions 3-1	
3.3	Start-up	
2.0	Calibration	
3.4	Manual Mode	
3.5	X-Board Mode	
5.5	11 2 out of 11 o	

		Section-Page
3.6 Diagnostic.  Calibrat  Diagnos  Tuning		)
3.7 Errors  Impulses Incorrect Limit sy		8
SECTION 4 MA	AINTENANCE	4-1
4.1 Wear Life	4-	1
4.2 Blade Guid	es4-/	2
4.3 Sawdust Re	emoval4-2	2
4.4 Vertical Ma	ast4-2	2
4.5 Miscellaneo	ous Lubrication4-	3
4.6 Belts	4-:	3
4.7 Drive Belt A	Adjustment4	4
4.8 Feed Track	Chain Tension4-	7
4.9 Up/Down S	System4-6	3
-	ices Inspection4-	
SECTION 5 AL	IGNMENT	5-1
5.1 Alignment	Procedures5-	1
	llation And Tracking5-2	
	el Alignment5	
5.4 Saw Head A	Adjustment5-9	9
5.5 Blade Guide	e Arm Vertical Adjustment5-10	0
5.6 Blade Guide	e Arm Horizontal Adjustment5-1	1
5.7 Aligning the	e Blade Guides5-1:	3
5.8 Blade Defle	ection5-1	4
5.9 Blade Guide	e Vertical Tilt Adjustment5-1:	5
5.10 Blade Guide	e Spacing5-1	7
	e Horizontal Tilt Adjustment5-13	
	ht Scale Adjustment5-19	
SECTION 6 SPI	ECIFICATIONS	6-1
	nensions6-	1
6.2 Cutting Cap	pacity6-:	5
6.3 Blade Moto	or Specifications6-	5
6.4 Noise Leve	16	5
	es6	
6.6 Dust Extrac	etor Specifications6-	7

**7-1** 

<b>SECTION</b>	7 REPLACEMENT PARTS	
7.1	How To Use The Parts List	7-1
7.1	Sample Assembly	7-1
7.2	Blade Guide Assembly, Idle Side	
7.3	Blade Guide Assembly, Drive Side	
7.4	Blade Guide Arm Assembly	7-4
7.5	Blade Wheel Assembly, Drive Side	
7.6	Blade Wheel Assembly, Idle Side	7-6
7.7	Hydraulic Blade Tensioner Assembly	7-7
7.8	Hydraulic Blade Tensioner	7-9
7.9	Hydraulic Pump Assembly	7-11
7.10	Middle Throat Screw	
7.11	Water Lube Assembly (Option)	7-14
7.12	Blade Lube System	7-15
7.13	HR Saw Head Warning Decals	7-17
7.14	Blade Housing Cover	7-19
7.15	Manual Up/Down System Screws	7-21
7.16	Manual Up/Down System	7-21
7.17	Mast	7-22
7.18	Mast Tilt Adjustment Screw	7-24
7.19	Vertical Mast Slide Pads	7-25
7.20	Motor Assembly	7-26
7.21	Feed Chain Drive & Tensioner	7-27
7.22	Hold-Down Roller Kit, HR500 1-6 - Standard	7-29
7.23	Hold-Down Rollers & Log Guide	7-30
7.24	101.6 Hold-Down Rollers for HR500 E11 / E15( 1-6 ) - OPTIONAL 7	7-32
7.25	101.6 Front Hold-Down Roller - OPTIONAL	7-33
7.26	101.6 Rear Hold-Down Roller - OPTIONAL	7-34
7.27	101.6 Hold-Down Roller Kit - OPTIONAL	7-35
7.28	Adjustable Hold-Down Roller (Option)	7-36
7.29	Main Module Base	
7.30	Main Module Feed Track	7-38
7.31	Additional Module Base	7-39
7.32	Additional Module Feed Track	7-41
7.33	Idle Roller Table, SLPIRT	7-42
7.34	Cross Roller Table, SLPCRT	
7.35	Control Box	7-46
7.36	Multisetwork (Option)	
7.37	Up/Down Drive Assembly (Option)	
7.38	Electric Box	

Table of Co	ontents	<b>Section-Page</b>
SECTION	8 SIDE FENCE (CE VERSION ONLY)	8-1
8.1	Side Fence	8-1
8.2	Moving Side Fence Support Bracket	8-2
8.3	Fixed Side Fence Support Bracket & Connecting Bracket	
8.4	Fixed Side Fence Support Bracket	8-5
8.5	Middle Support Bracket (Moving Side Fence)	8-6
8.6	Side Fence Barriers	8-8
8.7	Middle Support Bracket (Fixed Side Fence)	8-9
SECTION	9 DC ELECTROMAGNETIC BRAKE (CE ONLY)	9-1
9.1	Design and Principle of Operation	9-1
9.2	Service	

## **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

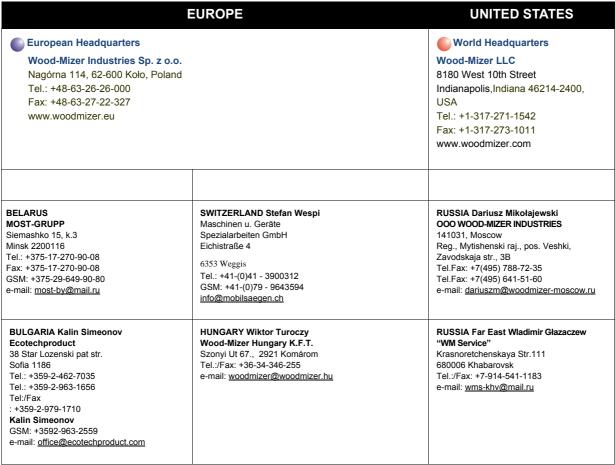
Please have your vehicle identification number and your customer number ready when you call. Wood-Mizer will accept these methods of payment:

- 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.

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## SECTION 1 SAFETY

## 1.1 Safety Symbols

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



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



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



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

## 1.2 Safety Instructions



**IMPORTANT!** The Resaw is intended for sawing wood only. The resaw must not be used for other purposes such as cutting ice, metal or any other materials. <u>See Section 5.2</u> for log size capacities of the machine.

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

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

### **Observe Safety Instructions**



**IMPORTANT!** Read the entire Operator's Manual before operating the resaw. 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 adult persons who have read and understood the entire operator's manual should operate the resaw. The resaw is not intended for use by or around children.

**IMPORTANT!** It is always the 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 resaw. All Wood-Mizer resaw owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using the machine.





## Wear Safety Clothing



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

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



## Keep Resaw And Area Around Resaw Clean



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

## **Dispose Of Sawing By-Products Properly**



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

## **Check Resaw Before Operation**



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



## **Keep Persons Away**



**DANGER!** Keep all persons out of the path of moving equipment and lumber when operating the resaw. Failure to do so will result in serious injury.

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



**WARNING!** Allow blade to come to a complete stop before opening the blade housing cover. Failure to do so will result in serious injury.



### Keep Hands Away



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

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

**DANGER!** Always keep hands away from moving bandsaw blade. Failure to do so will 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!** Use extreme caution when spinning the blade wheels by hand. Make sure hands are clear of blade and wheel spokes before spinning. Failure to do so may result in serious injury.

#### **Use Proper Maintenance Procedures**



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

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





**WARNING!** Consider all electrical circuits energized and dangerous.

**WARNING!** Disconnect and lock out power supply before servicing the resaw! 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.

**WARNING!** Remove the blade before performing any service to the motor or resaw. Failure to do so may result in serious injury.

**DANGER!** Never clean the blade or blade wheels using the hand-held brush or scraper whilst the resaw blade is in motion.

**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 resaw operation, push the EMERGENCY STOP button to stop the blade motor and wait 10 seconds before you open the blade housing cover.

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

## Keep Safety Labels In Good Condition

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

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

TABLE 1-1

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



<b>→</b> ••••••••••••••••••••••••••••••••••••	099221	CAUTION! Keep all persons a safe distance away from work area when operating the machine.
099222	099222	CAUTION! Sawdust outlet. Protect eyes!
096321	096321	Blade movement direction
	S12004G	CAUTION! Always wear safety goggles when operating the resaw!

	S12005G	CAUTION! Always wear protective ear muffs when operating the resaw!
	501465	CAUTION! Always wear safety boots when operating the resaw.
	512107	CAUTION! Always wear safety gloves when operating the resaw.
Anat	501467	Lubrication Point
P11789b	P11789	Aligning the blade on the wheels



CE	P85070	CE sign
<b>C A A A A A A A B A B A B A B A B B B B B B B B B B</b>	099401	Russian safety certification sign
S20087	S20097	Motor rotation direction
d 257mm 18 m/s 231mm 20 m/s 197nm 24 m/s	509025	Blade drive wheel diameter-blade linear speed
1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	505346	TVS Tensioner Valve Handle Positions
Type F[mm] E[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	510643	Blade Tension Values

101176	101176	CAUTION! Compressed air in the system even after electric power disconnection
6 bar 0.6 MPa	513181	Pressure value of the pneumatic system

## **SECTION 2 OPERATION**

## 2.1 Control Overview

**See Figure 2-1.** The control panel includes switches to start and stop the feed track and the saw head.

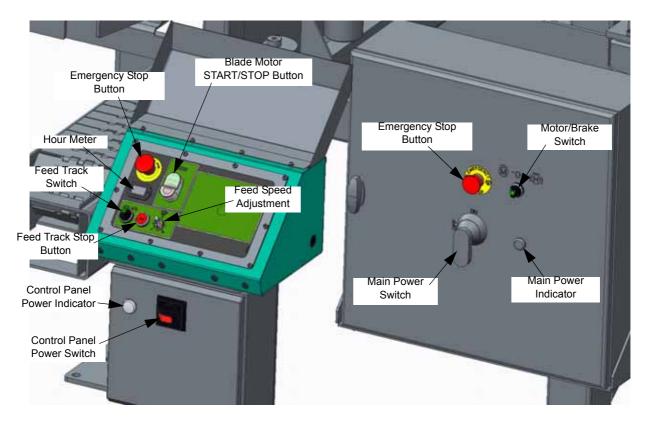


FIG. 2-1 CONTROL PANEL AND MAIN ELECTRIC BOX

## **Control Panel**

#### 1. Blade Drive

To start the blade motor, turn the key switch to the low position. Then press the START button. To stop the blade motor, press the STOP switch.

#### 2. Feed Track

To start spinning the feed track forward or backward, turn the switch left or right. To stop the feed track, press the STOP button

#### 3. Feed Track Speed Adjustment



The feed track speed switch controls the speed at which the feed track moves. Turn the switch clockwise to increase the speed, counterclockwise to reduce the speed.

#### 4. Emergency Stop

Push the emergency stop button to stop the blades and the track feed motor. Turn the emergency stop clockwise to release the stop. The resaw will not restart until the emergency stop is released.

#### 5. Hour Meter

Records work hours of the machine.

#### 6. Contol Panel Power Switch

Turns on and off power to the control box.

#### 7. Control Power Indicator

#### **Main Electric Box**

#### 1. Key Switch

The key switch has three positions:

- "0" position all electrical circuits are off,
- position all electrical circuits are on,
- position releases the motor disk brake; the blade and the track feed motors are off.

## 2. Emergency Stop

Push the emergency stop button to stop the blades and the track feed motor. Turn the emergency stop clockwise to release the stop. The resaw will not restart until the emergency stop is released.

#### 3. Main Power Switch

Disconnects power from all electric circuits of the machine.

# 2.2 Resaw Setup

The Horizontal Resaw is delivered to the customer place in modules. The HR modules must be mounted together.

See Figure 2-2. Attach the base to the additional module (or modules).

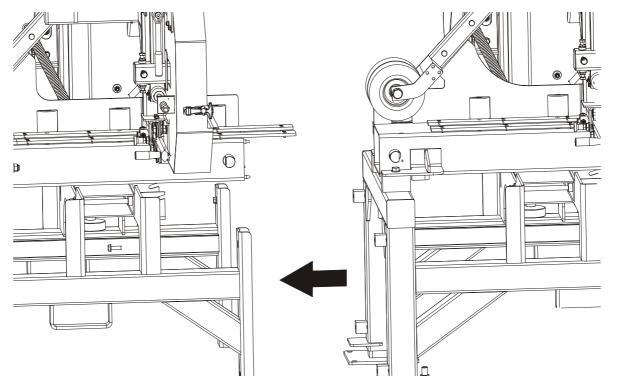


FIG. 2-2

**See Figure 2-3.** Using the appropriate bolts, washers and nuts, mount the base and the additional module (modules) together.

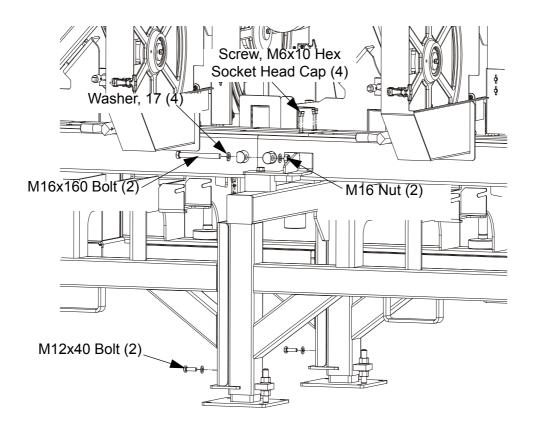


FIG. 2-3

See Figure 2-4. Mount the feed chain drive module.

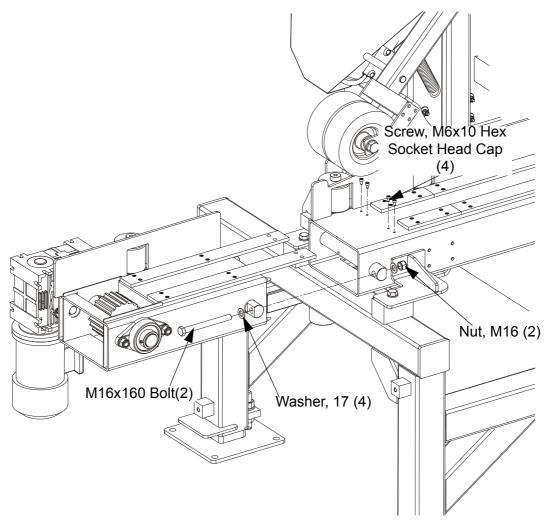


FIG. 2-4

See Figure 2-5. Mount the feed chain and apply proper tension. See Section 4.8

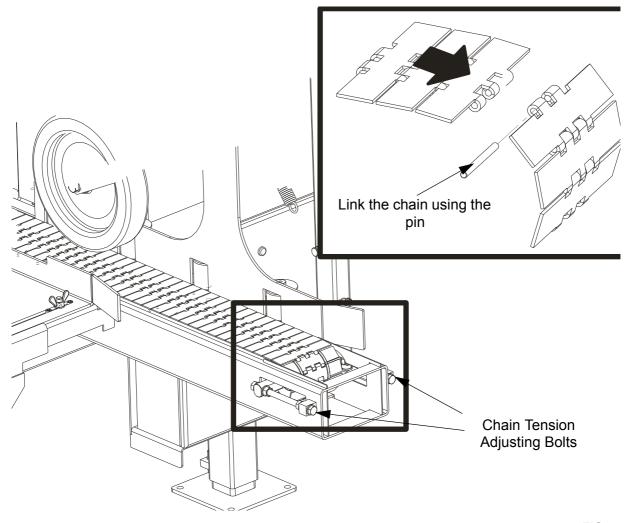


FIG. 2-5



**IMPORTANT!** Before stariting to use any HR resaw equipped with return tables, move the control panel and the rear e-stop to the locations shown in the figures 2-6 to 2-11 (depending on the resaw configuration).



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

- ■Set up the resaw on firm and level ground. Secure the saw to the ground to prevent moving during operation. A concrete foundation or pads and anchored bolts are recommended.
- ■The resaw can be operated with the sawdust collection system only.

- ■The resaw can be operated under roof only.
- ■The resaw can be operated in temperature range from -15° C to 40° C (5°F to 104°F) only.
- The illumination at the operator's position should be at least 300lx<sup>1</sup>.
- 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.



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

Depending on the number of saw heads, you should use different circuit breakers and power cord cross sections. See the tables below for the required connection specifications.

See Table 2-1.

Туре	Power Supply Voltage	Nominal Power	Preffered overcurrent protection Nominal Load	Preffered size of wires for Power supply mm <sup>2</sup>	Preffered size of wires for Power supply AWG
HR500EB15-4	230V/50Hz	45,5kW	160A	35 mm <sup>2</sup>	2
HR500EC15-1	460V/60Hz	14kW	25A	4 mm <sup>2</sup>	11
HR500EC15-2	460V/60Hz	27kW	40A	6 mm <sup>2</sup>	9
HR500EC15-3	460V/60Hz	39kW	63A	10 mm <sup>2</sup>	7
HR500EC15-4	460V/60Hz	52kW	90A	16 mm <sup>2</sup>	5
HR500EC15-5	460V/60Hz	64,5kW	120A	25 mm <sup>2</sup>	3
HR500EC15-6	460V/60Hz	77kW	140A	35 mm <sup>2</sup>	2
HR500EH11S-1	400V/50Hz	9kW	16A	2,5 mm <sup>2</sup>	13
HR500EH15(S)-1	400V/50Hz	12,5kW	25A	4 mm <sup>2</sup>	11
HR500EH15(S)-2	400V/50Hz	23,5kW	40A	6 mm <sup>2</sup>	9
HR500EH15(S)-3	400V/50Hz	34,5kW	63A	10 mm <sup>2</sup>	7
HR500EH15(S)-4	400V/50Hz	45,5kW	90A	16 mm <sup>2</sup>	5

<sup>1.</sup> The light source can not cause stroboscopic effect.

HR500EH15(S)-5	400V/50Hz	56,5kW	120A	25 mm <sup>2</sup>	3
HR500EH15(S)-6	400V/50Hz	67,5kW	140A	$35 \text{ mm}^2$	2

## Electrical Requirements (US Version Only)



**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.



**CAUTION!** The resaw motors and the transformer are prewired for 480 V, 60 Hz power supplies. If you plan to use a 480 V, 60 Hz mill with another type of power supply, you will need to rewire the motor to avoid damage to the machine.

The electrical requirements for the resaw are listed below. **IMPORTANT!** The resaw is wired for use with a 480 volt power supply. To operate the resaw with 240V or 380-415V power supplies, a transformer is required. Refer to the table below:

See Table 2-2.

Conversion From/To	240 to 480 volts			380-415 to 480 volts		
No. of Heads	2	4	6	2	4	6
Mfg. Part No.	EE30T3118H	EE45T3065H	EE75T3065H	EE30T2611H	EE45T2611H	EE75T2611H
AWMV Part No.	069712	069711	068057	069616	068054	068055

**TABLE 2-2** 

**See Table 2-3.** The machine FLA required for the resaw is listed below.

	Power	Sup	ply	Machine FLA/# of Heads			
Motor HP	Volts	PH	Hz	2	4	6	
25	240 <sup>1</sup>	3	50/60	125	188	313	
	380-415 <sup>1</sup>	3	50	75	113	188	
	480	3	60	50	95	140	

**TABLE 2-3** 

<sup>&</sup>lt;sup>1</sup> Transformer Required. FLAs include a transformer.

■All possible HR resaw and return tables configurations, operator's positions and E-STOP locations are shown in the figures below.

**See Figure 2-6.** Layout of the MRTHR6-M resaw (6-head HR for 1.5-3.6m (4.9- 11.8 ft) logs)

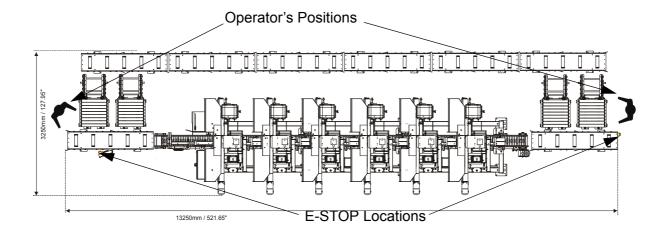


FIG. 2-6

See Figure 2-7. Layout of the MRTHR6-S resaw (6-head HR for logs <1.5m ( 4.9 ft ))

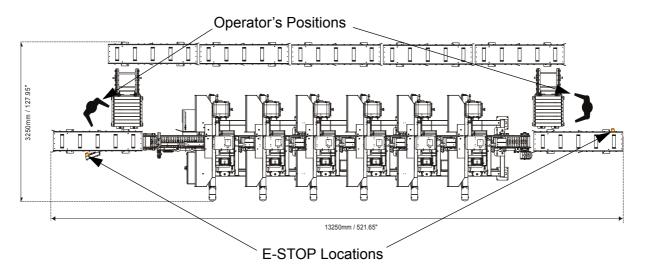


FIG. 2-7

**See Figure 2-8.** Layout of the MRTHR4-M resaw (4-head HR for 1.5-3.6m (4.9- 11.8 ft) logs)

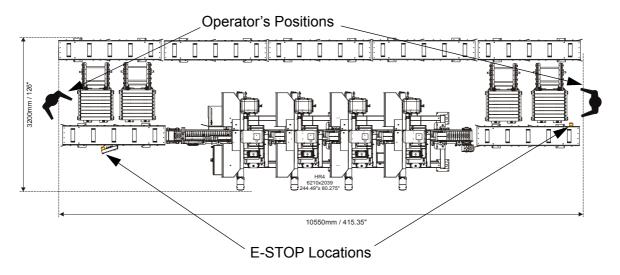


FIG. 2-8

See Figure 2-9. Layout of the MRTHR4-S resaw (4-head HR for logs <1.5m (4.9 ft ))

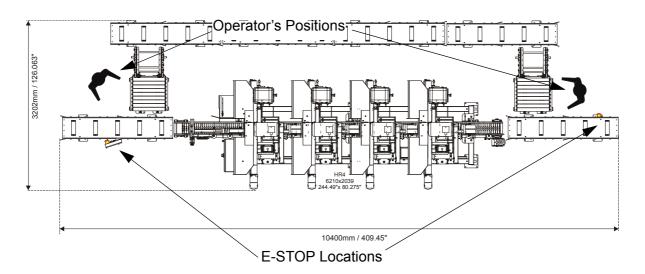


FIG. 2-9

**See Figure 2-10.** Layout of the MRTHR2-M resaw (2-head HR for 1.5-3.6m (4.9- 11.8 ft) logs)

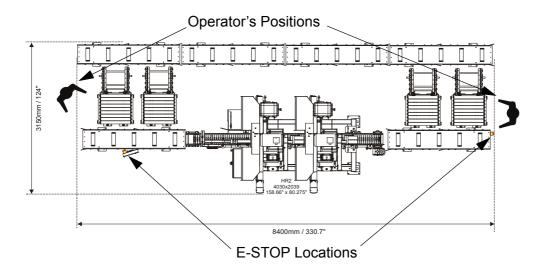


FIG. 2-10

See Figure 2-11. Layout of the MRTHR2-S resaw (2-head HR for logs <1.5m (4.9 ft ))

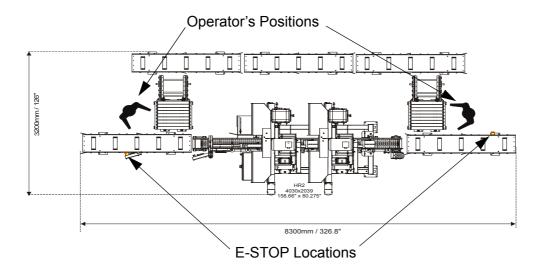


FIG. 2-11

**IMPORTANT!** When starting the machine for the first time, check that the 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 resaw motors.



■ The resaw can be lifted using a forklift only. The forklift must be rated for at least 2000kg (4410 lb). The resaw is equipped with forklift pockets. Insert the forks into the pockets shown in the figure below.

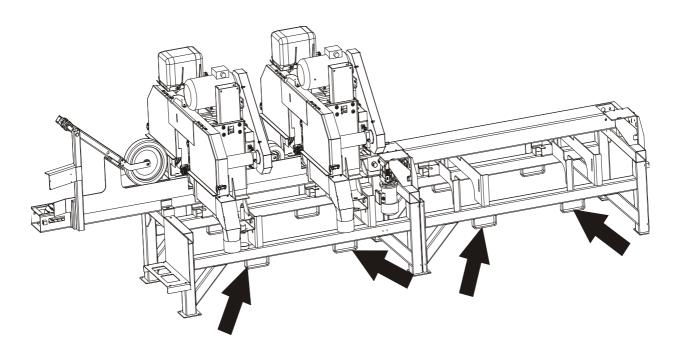


FIG. 2-11

## 2.3 Replacing The Blade

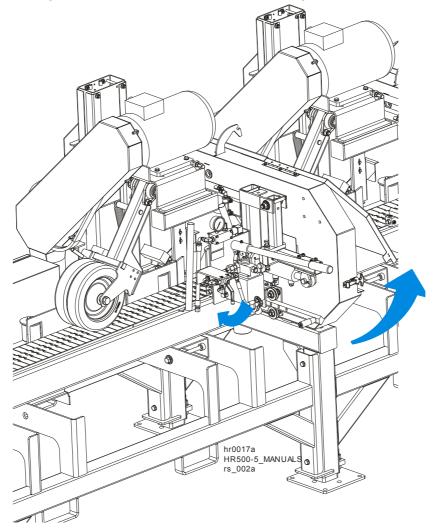


**DANGER!** Always shut off the resaw motor before changing the blade. Failure to do so may result in serious injury.



**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 valve handle to the "0" position 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.



Install a new blade around the two blade wheels so that the teeth located between the blade guide assemblies point to the drive side of the machine. Make sure the teeth are pointing the correct direction.

Position 1 1/4" wide blades on the wheels so the gullet is 3.0 mm (0.12"), ( $\pm$  1.0 mm (0.04")) out from the front edge of the wheel.

Close the blade housing cover.

Next, tension the blade as described in the following instructions.

#### 2.4 Tensioning The Blade

**See Figure 2-12.** Place the provided handle in the blade tensioner socket and secure with a screw. Set the tensioner valve to the "1" position. Move the tensioner handle up and down to tension the blade. Depending on the installed blade type, tension the blade to the value shown on the decal located below the blade tension valve. The values "F" and "E" are: blade thickness and blade width. Check the blade tension occasionally when adjusting the cant control or while cutting and adjust if necessary. As the blade and belts heat up and stretch, the blade tension will change. Also, ambient temperature changes can cause tension to change. To release the blade tension, set the tensioner valve to the "0" position.

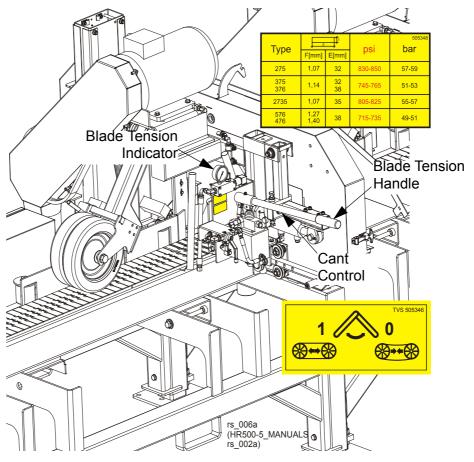


FIG. 2-12



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

#### 2.5 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 that the blade is properly positioned on the blade wheels.

**See Figure 2-13.** 1 1/4" wide blades should be placed on the blade wheels so that the gullet is 3.0 mm (0.12")  $\pm$  1.0 mm (0.04") out from the front edge of the wheel.

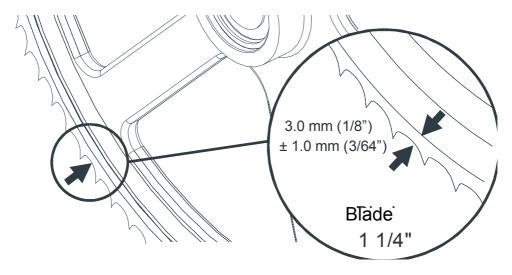


FIG. 2-13

**5.** Use the cant adjustment bolt, shown in **Figure 2-12**, 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.** Adjust the blade tension if necessary to compensate for any changes that may have occurred while adjusting the cant control.
- 7. Close the blade housing cover.



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

**NOTE:** After aligning the blade on the wheels, always check the blade guide spacing and location.

#### 2.6 Saw Head Height Adjustment

You can raise or lower each individual saw head to determine the thickness of the finished stock. The saw heads should be adjusted so that the last blade the material passes through is closest to the feed track.

**Example:** You want to cut cants into 12.5 mm (0.5") pallet material. Assuming your resaw has six cutting heads, you will need to adjust each head in 14.0 mm (0.55") increments up from the feed track. This will allow 1.5 mm (0.06") kerf for each blade.

**See Figure 2-14.** The sixth saw head (the last one the material will pass through) should be adjusted to 12.5 mm (0.5") above the feed track. The fifth head should be adjusted to 26.5 mm (1.04") above the track, the fourth head to 40.5 mm (1.6"), etc....

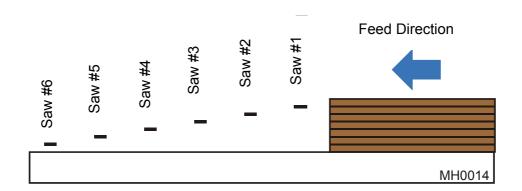


FIG. 2-14

- 1. Install a blade if needed and check for correct blade tension. (See Section 2.4)
- 2. Set the saw head at the desired height. (The blade height scale shows the height of the blade above the feed track.)

**See Figure 2-15.** To raise or lower the saw head, use the acme screw as shown in the figure. Turn the screw clockwise to raise the saw head; counterclockwise to lower the saw

head.

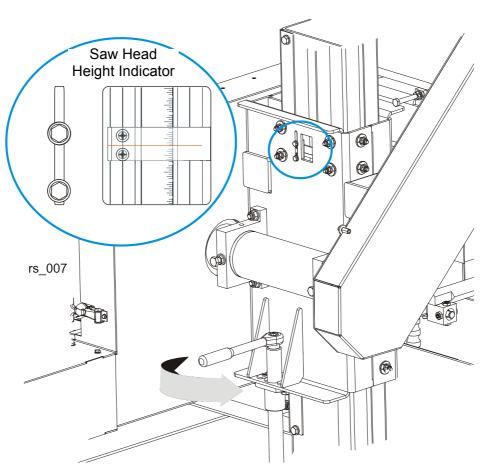


FIG. 2-15

**NOTE:** When adjusting the saw head height lower than 20mm, adjust the blade guide arm so that it does not touch the feed chain.

## See Figure 2-16.

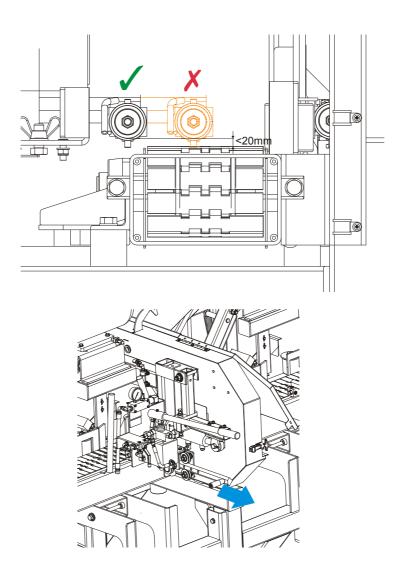


FIG. 2-16

#### 2.7 Tilt

**See Figure 2-17.** The saw head may be tilted to produce siding. Loosen the locking bolt. Turn the tilt adjustment screw clockwise to tilt the saw head upward or counterclockwise to tilt the saw head downward.

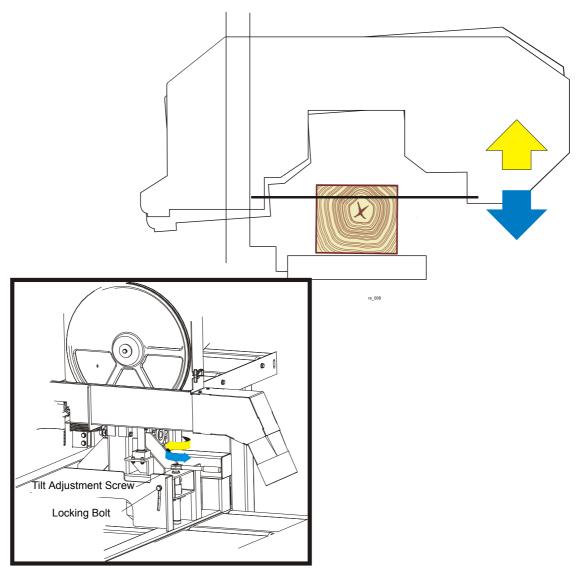


FIG. 2-17

**NOTE:** The saw head can be set at an angle of 0° to 8°.

## 2.8 Guide Fence Adjustment

See Figure 2-18. Loosen the wing nuts. Move the guide fence to the desired cant width.

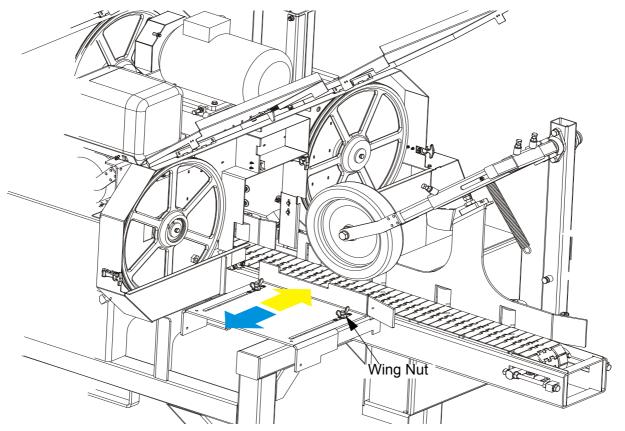


FIG. 2-18

#### 2.9 Blade Guide Arm Adjustment

The outside blade guide arm can be adjusted in or out depending on the width of the material to be cut. The arm should be adjusted about 25 mm (1") wider than the material to be cut.

**Example:** If the material to be cut is 150 mm (5.9") wide, adjust the blade guide arm so the area between the blade guides is 175 mm (6.9") wide.

**See Figure 2-19.** To move the blade guide arm, unlock the locking pin and slide the arm in or out. Lock the locking pin.

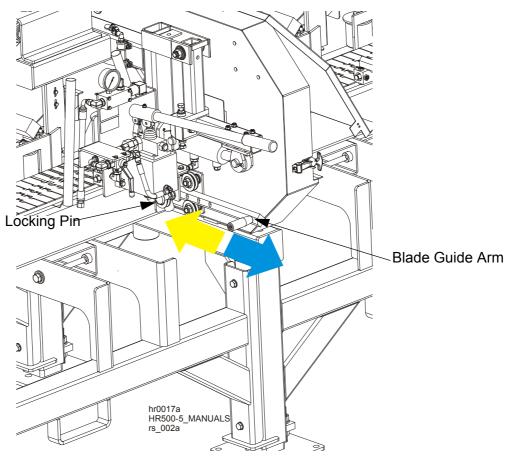


FIG. 2-19



#### 2.10 Machine Start



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

- Close the blade housing cover and replace any guards removed for service.
- Check the feed track and remove all loose objects such as tools, wood, etc.
- Check that the blade is properly tensioned.
- Make sure all persons are at a safe distance from the machine.
- Check that the emergency stops are released.

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

Before starting the saw heads, check that the main power switch servicing the resaw is on.

**See Figure 2-20.** Start the blade motors. To do this, turn the key switch to the position and then press the START button on the control panel (see the figure below). The motors should start and the blades should start spinning.

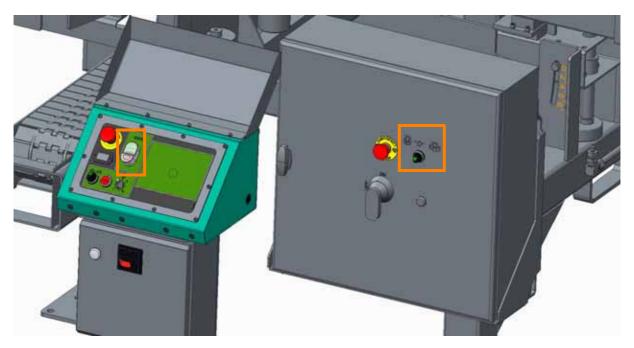


FIG. 2-20

To stop the blade motors, press the STOP button shown in the figure above. The blade motor also may be stopped by pushing either of the emergency stop buttons.

If either of the emergency stops has been used to stop the blade motor, rotate the switch clockwise before restarting the saw head. The saw head cannot be restarted until the emergency stop button is released.

**See Figure 2-21.** After the saw head has been successfully started, the feed track can be started. To start the track feed, turn left the Track switch shown in Figure 2-5.

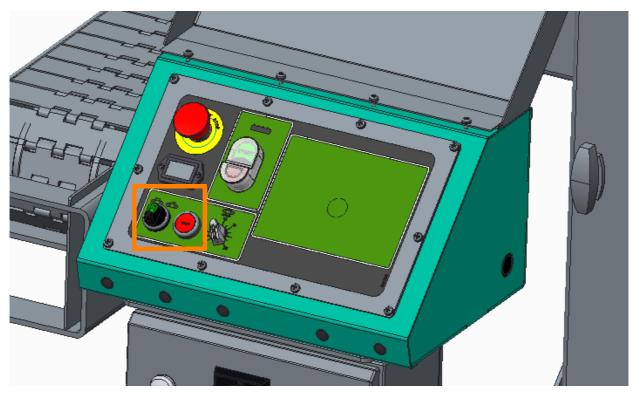


FIG. 2-21

The feed track can be stopped either by pressing the STOP button or one of the emergency stop buttons. The emergency stop will also stop the blade motor.

**NOTE:** The feed track cannot be started if the blade motor is not started.

See Figure 2-22. The speed at which the feed track moves is adjustable. The feed track

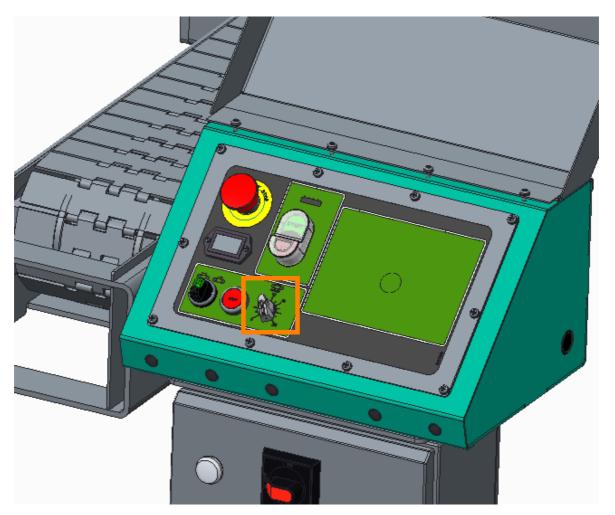


FIG. 2-22

speed switch, located on the control panel, allows the operator to adjust the feed rate from 0 to ca. 25 m (82 ft) per minute.

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

#### Factors that will determine what feed rate you can use include:

- Number of saw heads.
- Width of material to be cut. 200mm (7.9") wide material will require a slower feed rate than 100mm (3.9") wide material.
- Hardness of material to be cut. Some woods that are seasoned or naturally very

hard will require slower feed rates.

- Sharpness of blades. Dull or improperly sharpened blades will require slower feed rates than sharp and properly maintained blades.
- Off-bearing capability. Your ability to feed end-to-end will also determine what feed rate you can use.

#### 2.11 Water Lube Operation

#### Standard Lube System (Supplied from a Water Supply Network)

The Water Lube System keeps the blade clean. It is supplied from a water-pipe network (minimum pressure 0.35bar [0,05MPa], maximum 6bar [0.6MPa]). Water flows though a hose, a solenoid and a manual valve to the blade guide where the blade enters the log. The manual valve located on each saw head controls the amount of water flow.

**See Figure 2-23.** Connect the water hose to the lube system fitting shown below.

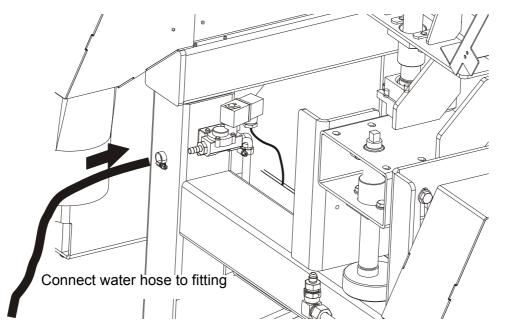


FIG. 2-23

**See Figure 2-24.** Use the manual valve on each saw head to adjust the amount of water flow.

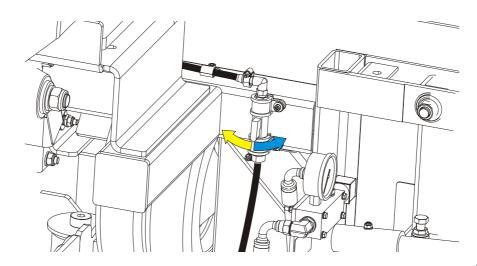


FIG. 2-24

Optional Lube System (Supplied from Water Tanks)

#### Optional Lube System (Supplied from Water Tanks)

**See Figure 2-25.** 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.

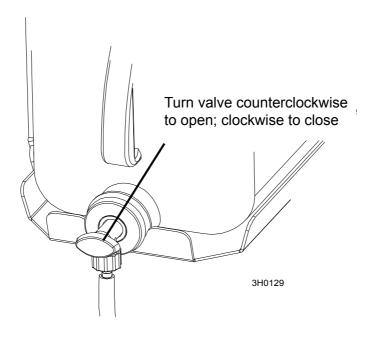


FIG. 2-25

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 (on average, the bottle content is sufficient for 4-hour-long cutting). A squirt of liquid dishwashing detergent in the water bottle will help clean the blade when cutting wood with a high sap content. Before you start cutting, check the water level in the bottle.



**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 blade 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 resaw when done sawing and store it in a warm place. Blow any remaining water from the water lube hose.

#### 2.12 Operation Procedure

1. Install a blade if necessary.



**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.

- 2. Close the blade housing cover.
- 3. Tension the blade See Section 2.4.
- 4. Spin the blade wheel by hand.



**WARNING!** Use extreme caution when spinning the blade wheel by hand. Make sure your hands are clear of the blade and the wheel spokes before spinning. Failure to do so may result in serious injury.

- **5.** Check alignment of the blade on the blade wheels and blade guides. Adjust as necessary.
- **6.** Raise or lower the saw heads to the desired setting.



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

- 7. Start the blade motor.
- **8.** Perform pre-start check (rotation direction of the blade motors).
- **9.** Using the feed track speed switch, set the feed rate as desired.



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



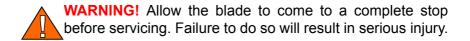
**WARNING!** Always wear eye, ear, respiration and foot protection when operating or servicing your resaw.

**10.** Place the test material on the feed track and start the feed track.



**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.

- 11. Shut off the blade and feed track. Measure the finished material and adjust the saw heads up or down as necessary. Repeat with the test material until the desired finished dimension is obtained.
- 12. Restart the blade and feed track.
- **13.** Place material on the infeed table. Return unfinished material to be re-fed into the resaw, i.e. place it on the return table.
- **14.** Monitor the blade tension as the operation continues. Adjust the blade tension if required.
- **15.** If material jam occurs, stop the blade motors and feed track.



- **16.** After the operation is complete, shut off the blade motors and feed track.
- 17. Release the blade tension if done sawing for the day.



**CAUTION!** Remove tension from the blade when the resaw is not in use.

# SECTION 3 MULTISETWORKS OPERATION (OPTIONAL EQUIPMENT)

#### 3.1 General Information

A new Multisetwork has been designed to automatically set the saw heads at any required height. It can be mounted on HR500 and HR700 resaw.

Saw head height is measured continuously and its accuracy depends on condition of the up/down system and feed track.

Multisetwork includes programmable PLC controller, incremental encoder, programmable control panel, motor breakers, frequency converters and limit switches.

#### 3.2 Functions

Multisetwork can work in two modes:

- MANUAL each saw head can be set by the operator separately, kerf is not included.
- X-BOARD the saw heads are set automatically according to pre-selected board thickness values - first saw head is set on the highest calculated height, the last saw head is set on the lowest calculated height. Blade kerf loss is included.
- The values can be displayed in metric or imperial (decimal or fractional) units of measure.
- There are two languages of the menu: Polish and English,
- Diagnostic mode.
- Tuning mode.

#### 3.3 Start-up

After starting the controller, the initial welcome screen will appear:

See Figure 3-1.

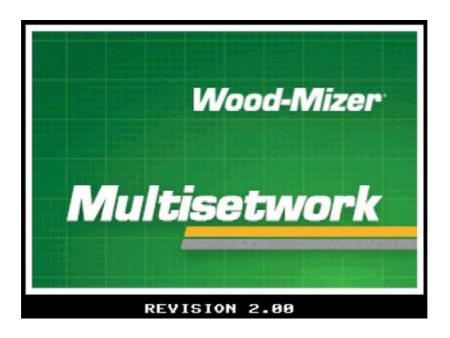


FIG. 3-1

#### 3.3.1 Calibration

After few seconds the CALIBRATION screen is displayed:

#### See Figure 3-2.

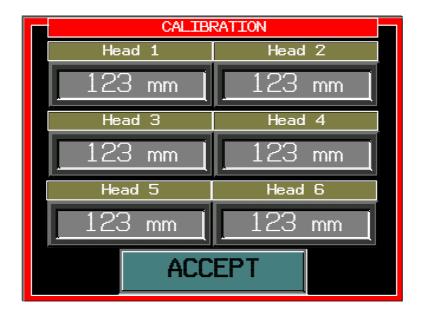


FIG. 3-2

Depending on the number of saw heads, the appropriate number of fields to enter values will appear.

Measure the height of each saw head and enter these values in the fields. Then press ACCEPT button. After accepting the entered values, the Choose mode screen will appear:

#### See Figure 3-3.



FIG. 3-3

#### 3.4 Manual Mode

After choosing the MANUAL mode in the main window, the screen shown below will be displayed:

#### See Figure 3-4.



FIG. 3-4

On this screen the current blade height value for each saw head and the target height values are displayed.

Press BACK button to move to the main window.

After pressing SET button, all saw heads will be moved to their preset target heights.

To change any target values, press on this value the TARGET window. Next, enter the required height value and confirm by pressing ENTER button.

Additionally saw head heights can be changed manually by operator. To do this, press the REAL window and use arrows to change saw head height with minimal speed:

#### See Figure 3-5.

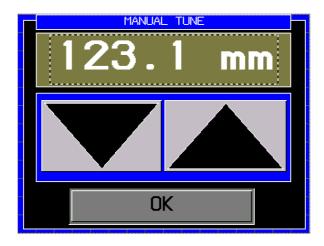


FIG. 3-5

Press OK button to back to MANUAL MODE screen.

Screen with imperial fractional unit of measure is shown below:

#### See Figure 3-6.

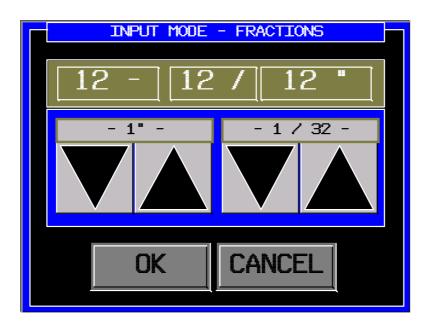


FIG. 3-6

Press OK to confirm entered value.

When positioning is started, the blinking POSITIONING button will appear instead of SET button.

#### See Figure 3-7.

Manual Mode



FIG. 3-7

#### 3.5 X-Board Mode

It is necessary to set the correct kerf value to allow the X-Board mode to work properly. Kerf value can be set in Diagnostic menu (<u>See Section 3.6.3</u>).

#### See Figure 3-8.

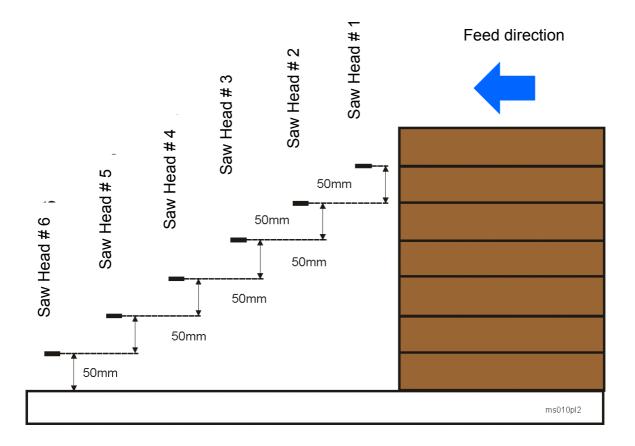


FIG. 3-8

After choosing the X-Board menu, depending on chosen units of measure, the following screen will be displayed:

#### See Figure 3-9.



FIG. 3-9

The X-Board screen includes a list of all saw head heights and board thickness values preset for each saw head.

To move to the main window (Choose Mode screen), press the BACK button.

After pressing SET button, each saw head will automatically be set at the calculated height.

To change any board thickness value, press on this value, enter the desired value and press ENTER. The entered board thickness value will automatically be copied to all dimensions above this value.

If the imperial fractional unit of measure was selected, the screen shown below will appear:

#### See Figure 3-10.

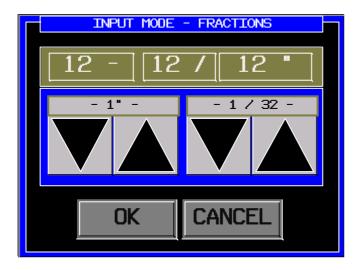


FIG. 3-10

In this case, press OK button to confirm the entered value.

When positioning is started, the blinking POSITIONING button will appear instead of SET button.

First saw head is set at the highest calculated height, last active saw head is set on the lowest calculated height.

As it is in Manual Mode, saw head heights can be changed manually by the operator. To do this, press the REAL window and use arrows to change saw head height with minimal speed:

#### See Figure 3-11.

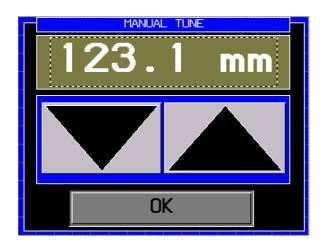


FIG. 3-11

When saw heads are set, press OK button to move to X-Board mode screen.

## 3.6 Diagnostic

Press DIAGNOSTIC button on the Choose mode screen:

#### See Figure 3-12.

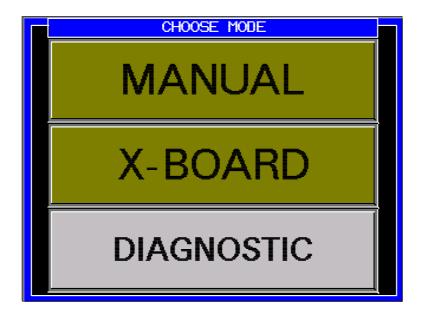


FIG. 3-12

The following screen will be displayed:

#### See Figure 3-13.



FIG. 3-13

Units of measure and language can be set on the DIAGNOSTIC screen. Also controller calibration can be made by pressing calibration button.



#### 3.6.2 Calibration

After pressing CALIBRATION button, following screen will be displayed.

#### See Figure 3-14.



FIG. 3-14

Check, if values of each saw head height are the same with real saw heads height read on the scale located on each saw head mast. If any of these values is incorrect, press this value, enter the correct value and confirm.

#### 3.6.3 Diagnostic I/O

After pressing DIAGNOSTIC I/O button, the following screen will be displayed:

#### See Figure 3-15.

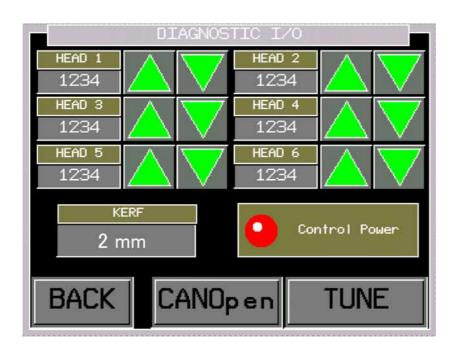


FIG. 3-15

The values in each HEAD window represent the current numbers of encoder revolutions. Use arrows to manually control the up/down system.

- Kerf. Press KERF window to enter the kerf value. Next confirm by pressing ENTER button. The correct kerf value for Wood-Mizer blades is 2.
- Control Power LED, shows the condition of the machine main control circuit.
- CANOpen button is used to move to CAN diagnostic screen:

#### See Figure 3-16.

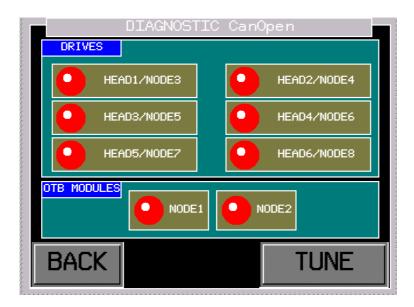


FIG. 3-16

In the DRIVES section, LEDs show the communication status with each drive. Green - communication is ok, Red - there is no communication.

OTB Modules show the communication status with OTB modules. These modules are active only when machine is equipped with 3, 4, 5 or 6 saw heads. When there is only one or two saw heads, control lights will be red - there will be no communication with OTB modules.

Press the window with saw head number/mode to move to the extended drive status. The following window will appear:

See Figure 3-17. Drives values may vary.

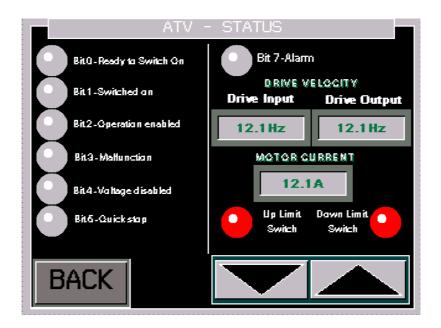


FIG. 3-17

Point Bit0-Bit7 - drive register status

Drive velocity - Input - Entered speed (Hz).

Drive velocity – Output – Motor speed (Hz).

Motor current – nominal value for 400/460V should be ~ 1,5A.

Up and down limit switches – conditions of up and down limit switches.

Green – limit switch is released, Red – limit switch is active.

Use arrows to move the saw head up and down with minimal speed.



## Diagnostic

3.6.4 **Tuning** 

Caution! – All changes have to be agreed with Wood-Mizer Customer Service! These parameters influence up/down operation.

If there are problems with saw head positioning, change parameters. These changes influence saw head movement.

Choose Tuning on the DIAGNOSTIC/TUNE menu:

#### See Figure 3-18.



FIG. 3-18

The screen below will appear:

See Figure 3-19. Values displayed by the controller may vary.

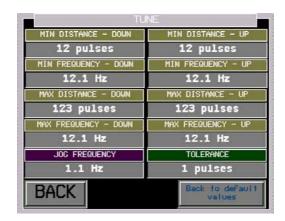


FIG. 3-19



#### 3.7 Errors

After choosing the X-BOARD mode, the following message may occur:

#### See Figure 3-20.



FIG. 3-20

Enter the DIAGNOSTIC I/O mode. Check if number of saw heads displayed on the screen and mounted on the machine are the same:

#### See Figure 3-21.

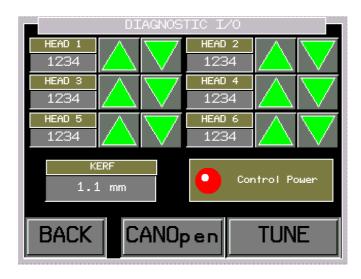


FIG. 3-21

When one saw head (e.g. saw head no 3) is missing, the diagnostic screen looks like shown below:

### See Figure 3-22.

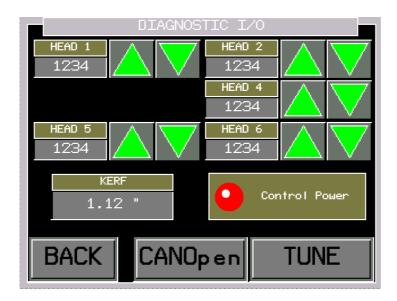


FIG. 3-22

Make sure if COF error is displayed on the drive controller after opening electric box.

CAN\_R LED should be steady on, I/O and CAN\_E LED should blinks red:

### See Figure 3-23.

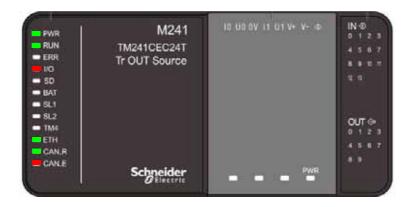


FIG. 3-23

If so, check connection between drive and cantap (patchcord with RJ45 terminals). When two or more saw heads are missing, check connection between cantaps and PLC controller. Next turn off and turn on the power to restart the connection. Connection condition can be also check on the Diagnostic screen by

pushing CanOpen button:

### See Figure 3-24.

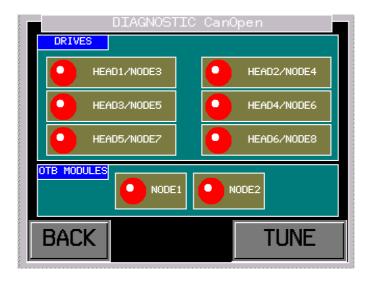


FIG. 3-24

In the DRIVES section, LEDs show the communication status with each drive. Green - communication is ok, Red - no communication.

OTB Modules show the communication status with OTB modules. These modules are active only when machine is equipped with 3, 4, 5 or 6 saw heads. When there is only one or two saw heads, control lights will be red - there will be no communication with OTB modules. If there is no connection between controller and OTB module(s), on the OTB module ERR LED will turn on:

### See Figure 3-25.

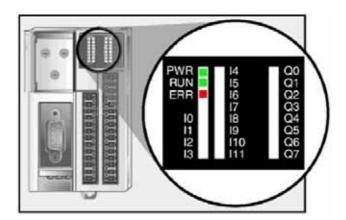


FIG. 3-25

### 3.7.5 Impulses are not counted.

### See Figure 3-26.

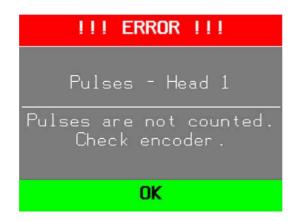


FIG. 3-26

This error may be caused by damage of: encoder, clutch between encoder and motoreducer, wire connecting encoder and connectors or wires connecting PLC controller inputs and power supply with connectors.

First remove encoder cover and check if encoder clutch is tightened and is not damaged.

Next, check the encoder connection to PLC controller or OTB module (encoders of the saw head number 1 and 2 are connecting with PLC 1.0 controller; encoders of the saw head number 3 and 4 are

connecting with PLC 2.0 controller; encoders of the saw head number 5 and 6 are connecting with PLC 3.0 controller).

Controller/Module	Encoder/Saw Head	Inputs
PLC 1.0	Encoder 1/Saw Head 1	I0 and I1
PLC 1.0	Encoder 2/Saw Head 2	I4 and I5
PLC 2.0	Encoder 3/Saw Head 3	I0 and I1
PLC 2.0	Encoder 4/Saw Head 4	I6 and I7
PLC 3.0	Encoder 5/Saw Head 5	I0 and I1
PLC 3.0	Encoder 6/Saw Head 6	l6 and l7

TABLE. 3-1

Next choose the Diagnostic Mode:

## See Figure 3-27.



FIG. 3-27

Use arrow buttons to move the saw head up or down and watch LED of the encoder input.

## See Figure 3-28.



FIG. 3-28

### See Figure 3-29.

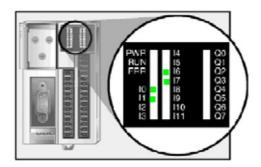


FIG. 3-29

LED should blink during the saw head movement. If LEDs of the encoder don't blink or only one of them blinks, check encoder power supply and damage of the connecting wires.

Voltage on the connectors between brown and blue wire should be ~24VDC.

### 3.7.6 Incorrect up/down movement direction

See Figure 3-30.



FIG. 3-30

This error may be caused by improper connection of the encoder or up/down motor. Enter the Diagnostic mode. Check if saw head is moving up when you press the UP arrow button and down when you press the DOWN arrow button.

If not, invert the phases on the motor or on the up/down motor contactors.

If the saw head movement is still incorrect, change places of the wires on the PLC controller (or PLC

module) input - black and white wires.

#### 3.7.7 Limit switches

### See Figure 3-31.

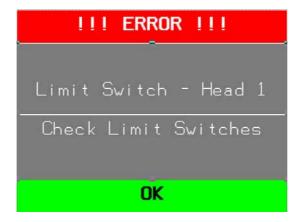


FIG. 3-31

#### Possible error cause:

- Saw head run on the up/down limit switch
- limit switch or wire between limit switch and connector is damaged
- wire between connector and inputs LI4 or LI5 of the drive are damaged.

When saw head run on the limit switch, it can move in the opposite direction.

Status of the limit switch can be checked on the Diagnostic screen for CanOpen devices.

### See Figure 3-32.

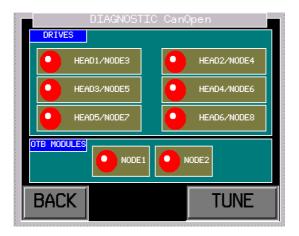


FIG. 3-7

Press the window with saw head number/mode to move to the extended drive status. The following window will appear:

### See Figure 3-33.



FIG. 3-8

Upper and lower limit switches – conditions of the upper and lower limit switches.

Green – limit switch is released, Red – limit switch on (is active)

If the saw head is not on the limit switch and limit switch LED is on, check the limit switch and next check connections between limit switch and drive.

### 3.7.8 Positioning error

See Figure 3-34.

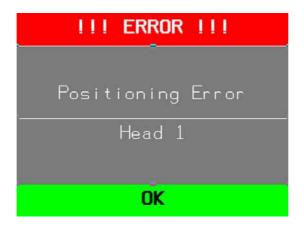


FIG. 3-9

Saw head run too slow or too far.

It is connected with saw head movement parameters on the TUNING screen:

See Figure 3-35.

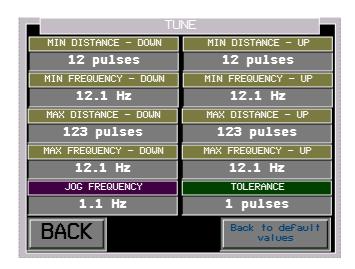


FIG. 3-10

First push BACK TO DEFAULT VALUES button, to set the factory set, default positioning parameters.

If error occurs once more, please contact with Wood-Mizer Customer Service.

# MULTISETWORKS OPERATION (OPTIONAL EQUIPMENT)



Caution! – All changes have to be agreed with Wood-Mizer Customer Service! These parameters influence up/down operation.

## **SECTION 4 MAINTENANCE**

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



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

Be sure to refer to the motor manual for maintenance procedures concerning the blade motor.

### 4.1 Wear Life

**See Table 4-1.** 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 resaw 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 4-1



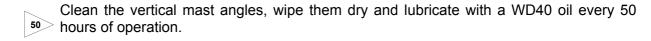
## 4.2 Blade Guides

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 Parts manual for blade guide rebuild kits and complete roller assemblies.

### 4.3 Sawdust Removal

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

### 4.4 Vertical Mast

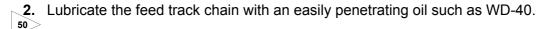


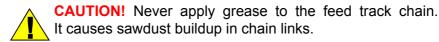


**CAUTION!** Never use grease on the mast angles as it will collect sawdust.

## 4.5 Miscellaneous Lubrication

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





- **3.** 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.
- 4. Lubricate the acme screws (screws for saw head tilting and raising or lowering) with a lithium grease every 50 hours of operation.

#### 4.6 Belts

- 1. Check the blade wheel belts for wear every 50 hours of operation. Replace as needed.
- 2. Periodically check all belts for wear. Replace any damaged or worn belts as needed.

## **Drive Belt Adjustment**



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

See Table 4-2. 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 resaw.

Motor	Belt Tension	
E11, E15	7/16" (11mm) deflection with 16 lbs. (7.2 KG) of deflection force	

TABLE 4-2

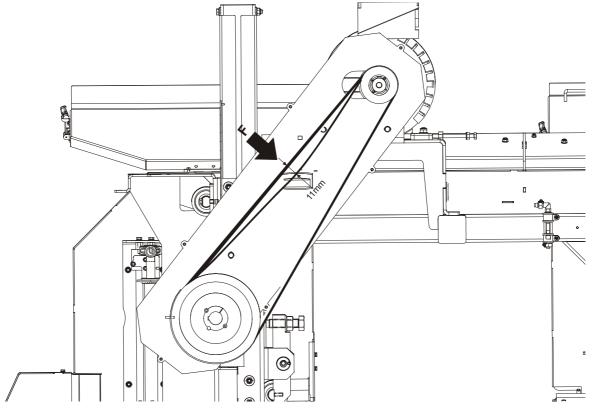


FIG. 4-1

To adjust the drive belt tension:

- 1. Remove the drive belt guard.
- 2. Loosen the four motor mounting bolts (see Figure 3-3).
- 3. Loosen one of the adjustment bolts, shown in Figure 3-3, and turn the other until the belt has proper deflection. (To increase the belt tension, you must loosen the right bolt and appropriately turn the left one.) NOTE: Be sure to adjust the bolts evenly so the motor remains in alignment.

**4.** Tighten the four motor mounting bolts.

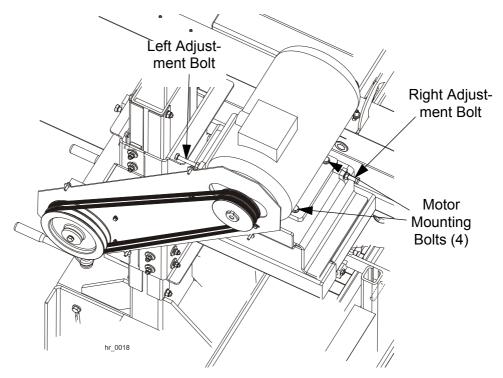


FIG. 4-2

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



**See Figure 4-3.** Keep the motor and drive pulleys aligned to prevent premature belt wear. Attach a straight lath to the front surfaces of the motor and the wheel drive pulleys. It should touch the pulleys on the entire length. To align the motor pulley and the drive pulley, loosen the set screw (or taper lock bushing set screw) in the motor pulley groove and slide the motor pulley on the shaft until it is in line with the drive pulley. After

performing the alignment, make sure the drive belt tension has not been changed.

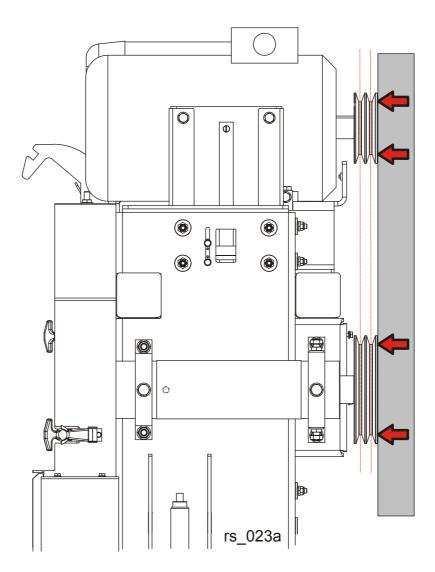


FIG. 4-3

## 4.8 Feed Track Chain Tension

**See Figure 4-4.** If necessary, use the adjustment bolts shown below to adjust the feed track chain tension. **NOTE:** The bolts must be adjusted evenly.

## See Figure 4-5.

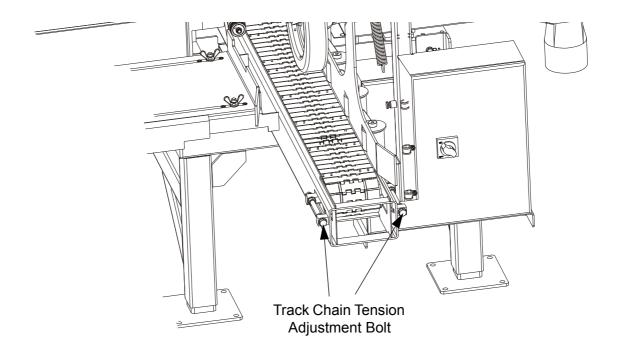


FIG. 4-6

# 4.9 Up/Down System

1. Lubricate the two acme screws, shown below, with a lithium grease every fifty hours of operation, but at least once a week.

## See Figure 4-7.

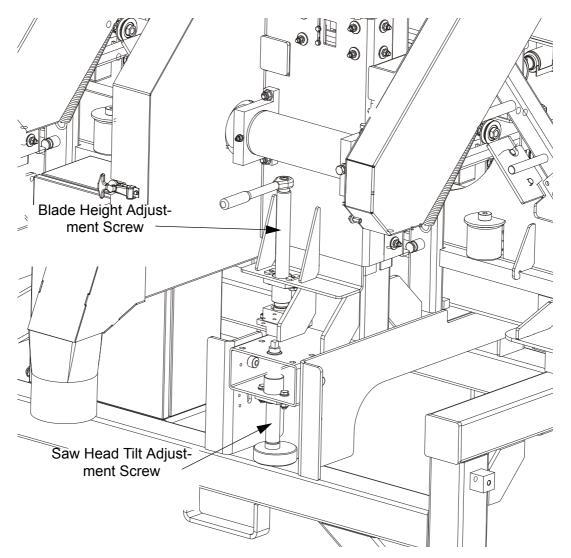


FIG. 4-8

## 4.10 Safety Devices Inspection

### **HR Safety Devices Inspection**

Before beginning a shift, the following safety devices of the HR resaw should always be checked:

- E-STOP button circuit control box
- E-STOP button circuit frame
- Safety switch circuit 1-6 saw heads
- Motor brake and its circuit

#### 1. Control box and main electric box E-STOP circuit inspection

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

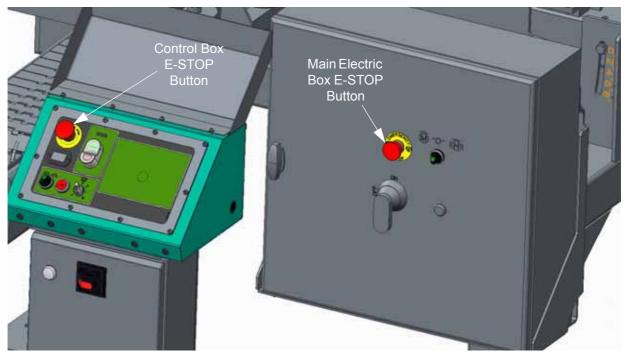


FIG. 4-9

### 2. Frame E-STOP circuit inspection

- Start the main motor;
- Push the E-STOP button located on the machine frame. The motor should stop. It should not be possible to restart the motor until the E-STOP is released.

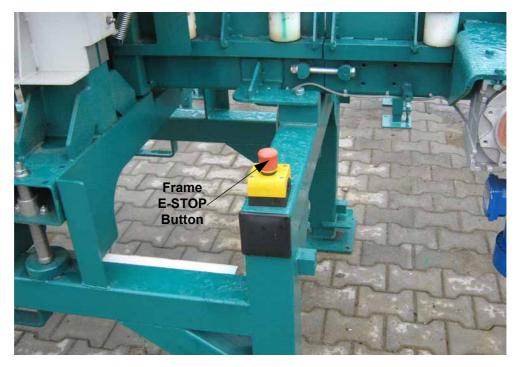


FIG. 4-10

### 3. Safety switch circuit inspection - 1 - 6 saw heads

- Start the main motors;
- Open the blade housing cover No.1;
- The main motor of the saw head No.1 should stop;
- Try to start the motor of the saw head No.1 using the START button. The motor cannot be started.
- Close the blade housing cover No.1;
- The motor should remain turned off.

Repeat the above steps for all remaining saw heads.



FIG. 4-11

#### 6. Main motor brakes and their circuits

- Start the main motor of the saw head No.1. Then stop the motor by pushing the STOP button. Measure the braking time.
- Start the main motor of the saw head No.1. Then turn the key switch to the "0" position to stop the motor. Measure the braking time.
- Start the main motor of the saw head No.1. Then stop the motor by turning the key switch to the "H" position. Measure the braking time.
- Repeat the above steps for all remaining saw heads.

The motor braking time should be shorter than 10 seconds. If it is longer, adjust or replace the brake linings. (See the motor manual.)



## **SECTION 5 ALIGNMENT**

## 5.1 Alignment Procedures

The Wood-Mizer resaw is factory aligned. This section includes instructions on how to realign the resaw completely. Be scrupulous when performing all alignment steps as resaw alignment determines the accuracy of your cuts. The alignment procedure should be performed approximately every 1500 hours of operation.

#### **Routine Alignment Procedure:**

- **1.** Install and track the blade (<u>See Section 5.2</u>).
- 2. Check and adjust the vertical alignment of the blade guide arm (<u>See Section 5.5</u>).
- 3. Check and adjust the horizontal alignment of the blade guide arm (<u>See Section 4.6</u>).
- **4.** Check and adjust the vertical angle of the blade guides (See Section 5.9).
- 5. Check and adjust the horizontal angle of the blade guides (See Section 4.11).
- **6.** Check and adjust the spacing between the blade guide flanges and the back of the blade (See Section 5.10).
- 7. Check that the blade height scale accurately displays the actual distance from the bottom of the blade to the feed track and adjust if necessary (<u>See Section 4.13</u>).

### **Complete Alignment Procedure:**

Perform all steps in this section to completely realign the resaw.

5-1 MHdoc092116

## 5.2 Blade Installation And Tracking

**See Figure 5-1.** Install a blade and apply the proper tension as shown below. <u>See Section 2.4</u>

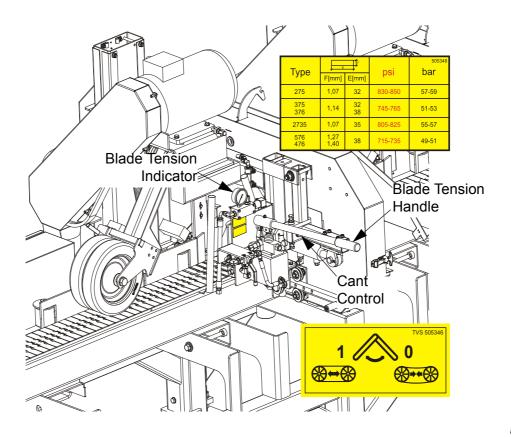


FIG. 5-1

1. Turn the key switch to the "H" position.



- 2. Open the blade housing cover.
- 3. Manually spin one of the blade wheels until the blade positions itself on the wheels.

**See Figure 5-2.** The blade wheels should be adjusted so that the gullet of 1 1/4" blades rides 3.0 mm (0.12") out from the front edge of the wheels ( $\pm$  1.0 mm [0.04"]). The gullet of 1 1/2" blades should ride 4.5 mm (0.18") from the front edge of the wheels ( $\pm$  1.0 mm

MHdoc092116 5-2

### [0.04"]). Do not let the teeth ride on the belt.

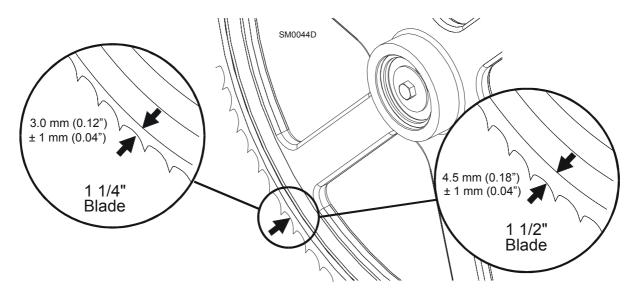


FIG. 5-2

To adjust where the blade travels on the idle-side blade wheel, use the cant control shown in **Figure 5-7**.

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.

Some adjustment in blade tension may be needed to compensate for adjustments made with the cant control.

Adjustment with the cant control is usually all that is required to track the blade properly on both blade wheels. The drive-side blade wheel will usually not have to be adjusted. If necessary, the drive-side wheel can be adjusted as follows:

Locate the nuts and the clamping screws on the drive-side of the cutting head. If the blade is too far forward on the wheel, turn the screw located on the inside of the head counterclockwise and turn the screw located on the outside of the head clockwise. Make sure to tighten the nuts against the shaft housing when adjustment is complete.

5-3 MHdoc092116

## 5.3 Blade Wheel Alignment

The blade wheels should be adjusted so they are level in the vertical and horizontal planes. If the blade wheels are tilted up or down, the blade will want to travel in the tilted direction. If the blade wheels are tilted horizontally, the blade will not track properly on the wheels.

1. Use the blade guide alignment tool to check the vertical alignment of each blade wheel. Attach the tool to the blade near the inner blade guide mount. Be sure the tool does not rest on a tooth or burr, and is lying flat against the blade.

### See Figure 5-3.

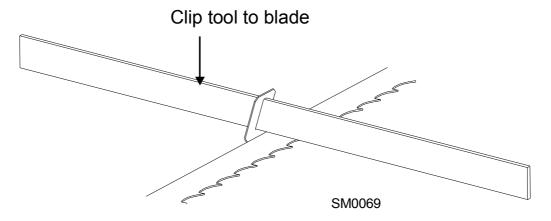


FIG. 5-3

- **2.** Measure from the bottom of the tool to the top of the feed track.
- **3.** If the two measurements differ by more than (± 1.0 mm (0.04")), adjust the vertical tilt of the drive-side blade wheel.

MHdoc092116 5-4

See Figure 5-4. Use the vertical adjustment screws (marked with the blue and yellow arrows in the figure below) to adjust the drive-side blade wheel. Before adjusting the wheel, loosen the drive belt using the adjustment bolts marked with the orange arrows in the figure. Loosen the jam nut and the hex socket head screw marked with the red arrow in the figure and adjust the wheel with the vertical adjustment screws. To tilt the wheel down, loosen the top adjustment screw one quarter turn. Loosen the jam nut on the bottom adjustment screw and tighten the screw. Tighten the top and bottom jam nuts. To tilt the wheel up, loosen the bottom adjustment screw one quarter turn. Loosen the jam nut on the top adjustment screw and tighten the screw. Tighten the top and bottom jam nuts. Tension the drive belt properly (See Section 3.8).

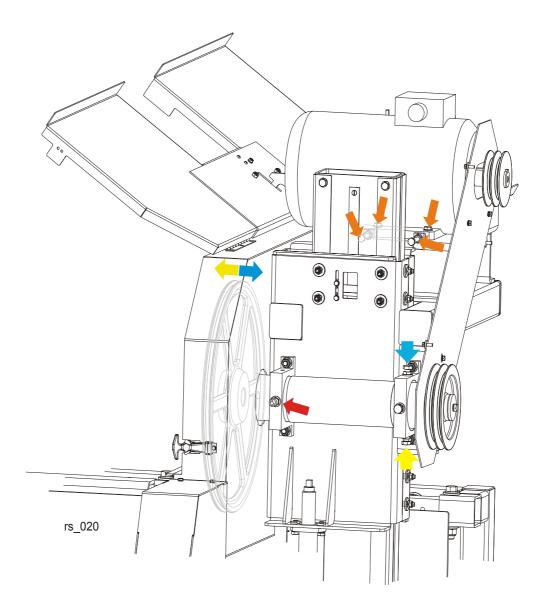


FIG. 5-4

5-5 MHdoc092116

- **4.** Recheck the vertical tilt of the drive-side blade wheel with the blade guide alignment tool. Readjust the blade wheel as necessary until the front and rear of the tool are the same distance from the feed track (± 1.0 mm (0.04")).
- 5. Remove the tool from the blade and reattach it near the outer blade guide assembly.
- **6.** Measure from the tool to the feed track at both ends of the tool. If the measurements at the front and rear ends of the tool differ more than (± 1.0 mm (0.04")), adjust the vertical tilt of the idle-side blade wheel.

**See Figure 5-5.** Use the vertical adjustment screws to adjust the idle-side blade wheel. To tilt the wheel up, loosen the bottom adjustment screw one quarter turn. Loosen the jam nut on the top adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

To tilt the wheel down, loosen the top adjustment screw one quarter turn. Loosen the jam nut on the bottom adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

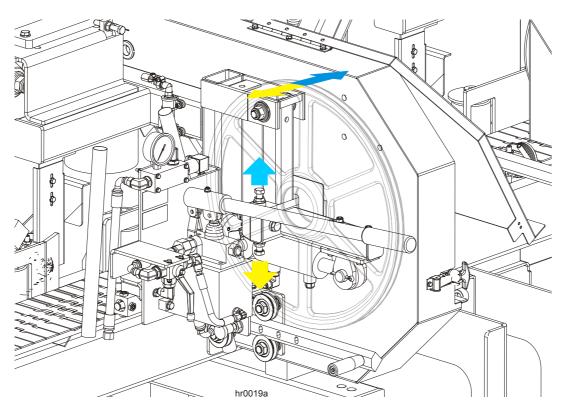


FIG. 5-5

7. Recheck the vertical tilt of the idle-side blade wheel with the blade guide alignment tool. Readjust the blade wheel as necessary until the front and rear of the tool are the same distance from the feed track.

MHdoc092116 5-6

**8.** Check the position of the blade on the idle-side blade wheel.

**See Figure 5-6.** The horizontal tilt of the blade wheel should be adjusted so that the gullet of an 1-1/4" blade is 3.0 mm out from the front edge of the wheel ( $\pm$  1.0 mm (0.04")).

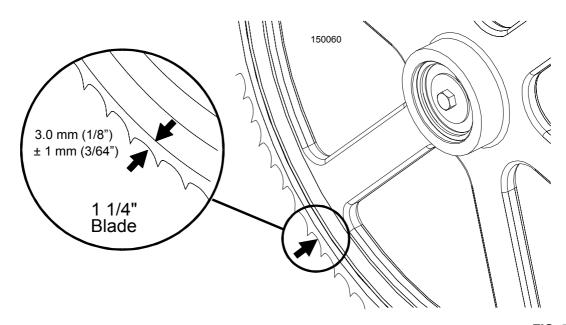


FIG. 5-6

**See Figure 5-7.** Use the cant control adjustment to adjust the idle-side blade wheel. If the blade is too far forward on the wheel, turn the cant control counterclockwise. If it is too far back on the wheel, turn the cant control clockwise.

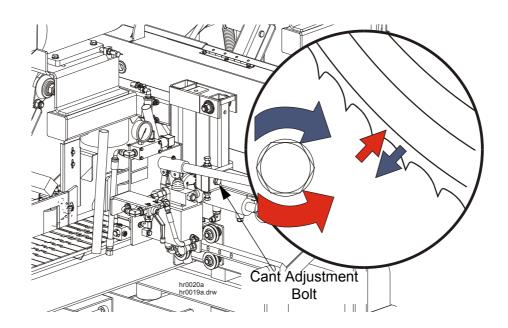


FIG. 5-7

5-7 MHdoc092116

**9.** Check the position of the blade on the drive-side blade wheel. The blade should be positioned on the wheel as described for the idle-side blade wheel. Adjust the drive-side blade wheel if necessary.

**See Figure 5-8.** Use the horizontal adjustment screws (marked with the blue and yellow arrows in the figure below) to adjust the drive-side blade wheel. Before adjusting the wheel, loosen the drive belt using the adjustment bolts marked with the orange arrows in the figure.

To move the blade back on the wheel, loosen the right adjustment screw one quarter turn. Loosen the jam nut on the left adjustment screw and tighten the screw. Tighten the left and right jam nuts.

To move the blade out on the wheel, loosen the left adjustment screw one quarter turn. Loosen the jam nut on the right adjustment screw and tighten the screw. Tighten the left and right jam nuts. When the adjustment is complete, tension the drive belt properly (<u>See Section 3.8</u>).

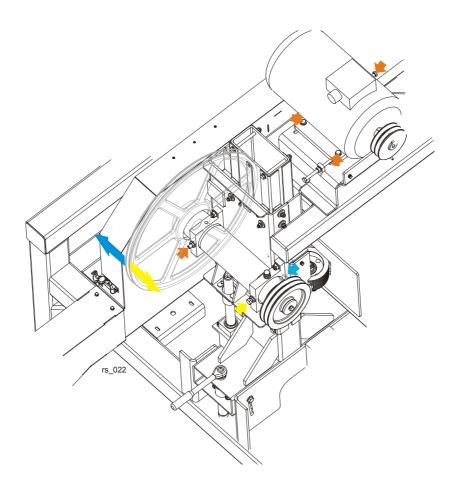


FIG. 5-8

MHdoc092116 5-8



## 5.4 Saw Head Adjustment

**See Figure 5-9.** The saw head should be set perpendicularly to the vertical mast. Using the two sets of adjustment screws in the mast slide pads, you can adjust the saw head in relation to the mast. To raise or lower the outside of the saw head, loosen the locking nuts on either of the sets of screws. Then turn the adjustment nuts clockwise to raise the ouside of the saw head or counterclockwise to lower the outside of the saw head. **NOTE:** Be sure to adjust the nuts evenly so the slide pad is parallel to the mast tube. If further adjustment is needed and one set of the nuts has been fully adjusted, use the other set of nuts.

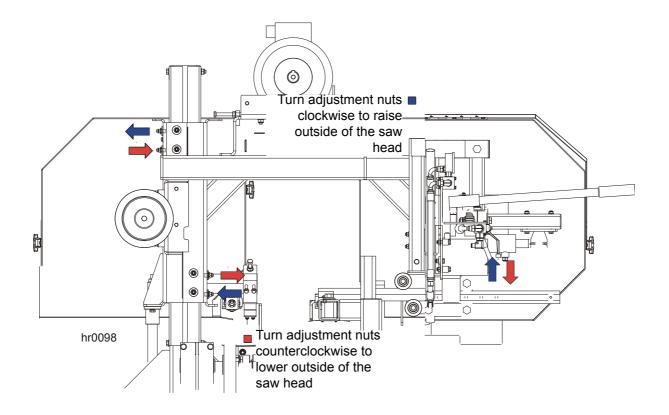


FIG. 5-9

5-9 MHdoc092116

## 5.5 Blade Guide Arm Vertical Adjustment

- 1. Adjust the blade guide arm out to within 1/2" (15 mm) of full open.
- 2. Measure the distance from the top surface of the feed track to the arm.

#### See Figure 5-10.

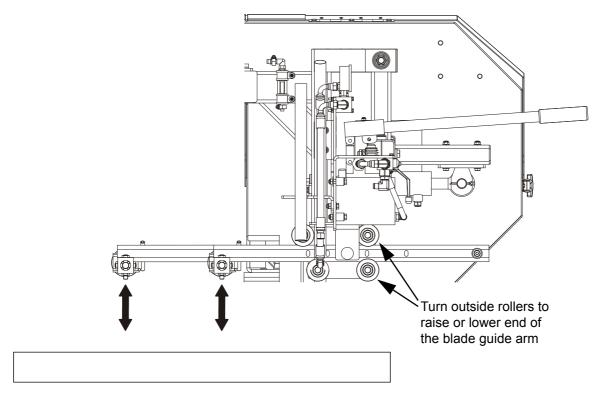


FIG. 5-10

- **3.** Adjust the blade guide arm in to within 1/2" (15 mm) of full closed. Measure again the distance between the arm and the feed track.
- **4.** Adjust the arm so that the measurement from the top of the track feed to the arm in the closed position is the same as the measurement from the top of the track feed to the arm in the open position.

If the arm is too low in the closed position, loosen the lower outside roller and tighten the upper outside roller. (See Step 5.)

If the arm is too high in the closed position, loosen the upper outside roller and tighten the lower outside roller. (See Step 5.)

5. The rollers are mounted on cam bolts that raise or lower the arm when turned.

MHdoc092116 5-10

To adjust the rollers, locate the cam bolt inside the housing and turn until the arm is lowered or raised as needed. Recheck the arm in both, open and closed positions. Repeat adjustments until the arm is the same distance from the track feed in the open and closed position.

**6.** The blade guide arm should be snug, but not too tight, in the rollers. You should be able to move it in and out with firm hand pressure. There should be no side-to-side play.

## 5.6 Blade Guide Arm Horizontal Adjustment

- 1. Put the blade guide assembly back in the arm (if you took it out). Put the assembly back so that the flanged collar on the roller is about 3.0 mm (0.04") from the back of the blade when the arm is 15 mm (0.6") from full open.
- **2.** Close the throat to within 15 mm (0.6") from fully closed. Check to see that the flange is the same distance from the back of the blade.

### See Figure 5-11.

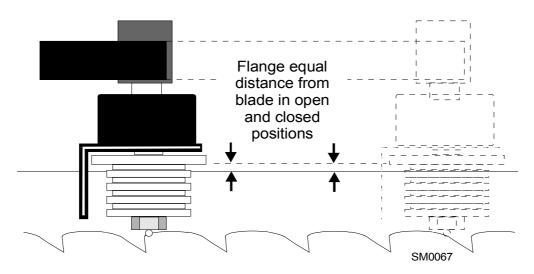


FIG. 5-11

**3.** If adjustment is needed, the guide rollers can be adjusted in or out on the threaded mounts to open or close the gap.

5-11 MHdoc092116

### See Figure 5-12.

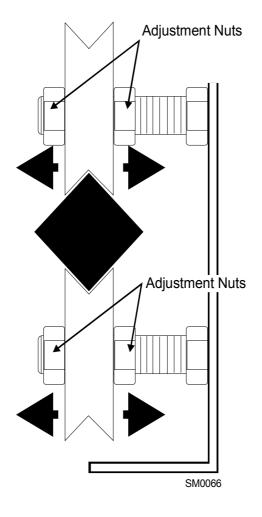


FIG. 5-12

- **4.** Adjusting the outside two rollers inward will cause the flange to move away from the blade.
- 5. Adjusting the two outside rollers outward will cause the flange to move toward the blade.
- **6.** Adjust until the roller flange is the same distance from the back of the blade in the open and closed position.

MHdoc092116 5-12

## 5.7 Aligning the Blade Guides

Each Wood-Mizer resaw has two blade guide assemblies that help the blade maintain a straight cut. The two blade guide assemblies are positioned on the cutting head to guide the blade on each side of the material being cut.

One blade guide assembly is mounted in a stationary position on the drive side of the cutting head. This assembly is referred to as the "inner" blade guide assembly.

The other blade guide assembly is mounted on the idle side of the cutting head. It is referred to as the "outer" assembly and is adjustable for various widths of materials to be processed.

Blade guide alignment includes four steps:

- Blade Deflection,
- Blade Guide Vertical Tilt,
- Blade Guide Flange Spacing,
- Blade Guide Horizontal Tilt.

Perform the blade guide alignment after you have aligned the blade on the wheels. After blade guide alignment, check the scale indicator to make sure it is adjusted properly (<u>See Section 4.13</u>).

**NOTE:** During blade guide alignment, remove the blade guide adjusting screws and apply lubricating oil such as 10W30 or Dexron III to each screw. This will prevent the screws and threaded holes from corroding and makes screw adjustments easier.

5-13 MHdoc092116

### 5.8 Blade Deflection

Perform the following steps to achieve proper blade deflection with the blade guides.

- **1.** Raise the saw head until the blade is 200 mm (7.9") above the feed track. Measure the actual distance with a tape from the top of the track to the bottom of the blade.
- **2.** Install the blade guides. Make sure the two set screws shown are threaded into the blade guide shaft until they touch each other.

### See Figure 5-13.

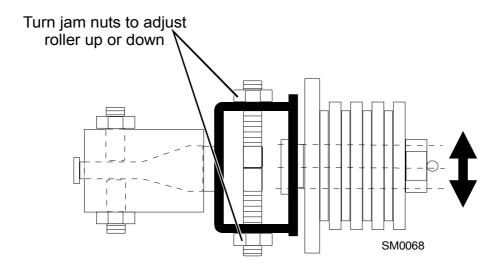


FIG. 5-13

- **3.** Loosen the bottom jam nut and tighten the top jam nut until the blade guide deflects the blade down 6.0 mm (0.24").
- **4.** Repeat for the other blade guide.

**NOTE:** Be sure that the blade guide touches the blade in both guide assemblies. The outer blade guide should be checked with the arm all the way in and all the way out.

## 5.9 Blade Guide Vertical Tilt Adjustment

Check that the blade guide does not tilt the blade up or down. A Blade Guide Alignment Tool (BGAT) is provided to help you measure the vertical tilt of the blade.

- **1.** Open the blade guide arm 15 mm (0.6") from full open.
- **2.** Clamp the alignment tool on the blade. Position the tool close to a blade guide roller. Be sure the tool does not rest on a tooth or burr, and is lying flat on the blade.

### See Figure 5-14.

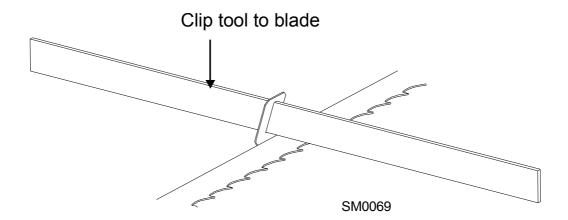


FIG. 5-14

- **3.** Measure the distance from the bottom of the tool to the feed track chain at the center of the tool and then at the front end of the tool.
- **4.** The two distances should be equal. If they differ, adjust the vertical tilt of the blade guide using the adjustment screws shown in the figure below.

**See Figure 5-15.** Loosen the jam nuts on the top and bottom vertical tilt adjustment screws. To tilt the roller up, loosen the bottom screw and tighten the top screw. To tilt the roller down, loosen the top screw and tighten the bottom screw. Tighten the jam nuts and

5-15 MHdoc092116

recheck the tilt of the blade.

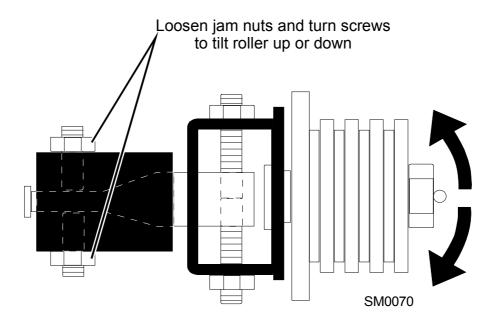


FIG. 5-15

- **5.** Measure the distance from the bottom of the tool to the top of the feed track chain at the rear end of the tool. If the measurement does not equal the other two measurements taken, readjust the vertical tilt of the blade guide.
- **6.** Move the blade guide alignment tool close to the other blade guide and repeat the above steps. Adjust the vertical tilt of this guide if necessary.

**NOTE:** If major adjustments to blade guide tilt were made, measure the distance between the blade and the feed track chain again to ensure the correct 6.0 mm (0.24") blade guide deflection. Adjust if necessary.

MHdoc092116 5-16



#### 5.10 Blade Guide Spacing

**HINT:** When adjusting the blade guide spacing, loosen the top set screw and one side set screw only. This will ensure horizontal and vertical tilt adjustments are maintained when the set screws are retightened.

- **1.** Adjust the inner blade guide so the blade guide flange is approximately 1.5 3.0 mm (0.06 0.12") from the back of the blade.
- **2.** Loosen one side and one top set screw shown. Tap the blade guide forward or backward until properly positioned.

#### See Figure 5-16.

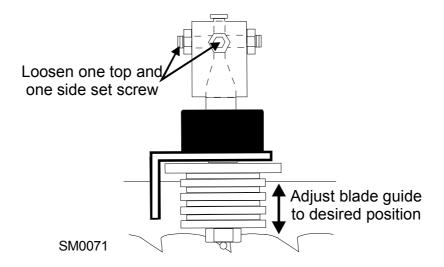


FIG. 5-16

- 3. Retighten the two set screws.
- **4.** Adjust the outer blade guide in the same way so the blade guide flange is approximately 1.5 3.0 mm (0.06 0.12) from the back of the blade.

5-17 MHdoc092116

#### 5.11 Blade Guide Horizontal Tilt Adjustment

**1.** Finally, both blade guides must be tilted horizontally. Adjust the blade guide arm halfway in.

#### See Figure 5-17.

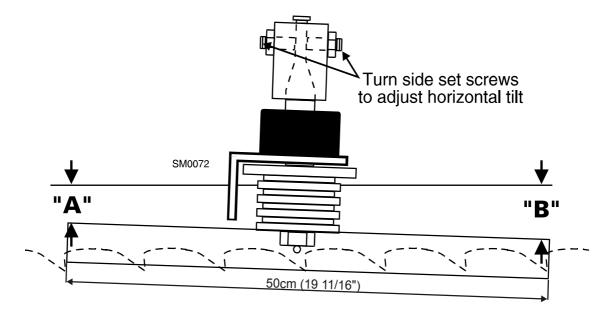


FIG. 5-17

- 2. Place the Blade Guide Alignment Tool against the face of the outer blade guide roller.
- **3.** Center the tool on the roller and measure between the back edge of the blade and the ruler at the end closest to the inner blade guide ("B").
- 4. Measure between the back edge of the blade and the other end of the ruler ("A").
- **5.** The roller should be tilted slightly to the left (A = B 6.0 mm [0.24"]).
- **6.** Use the side set screws to adjust the horizontal tilt of the roller.
- **7.** Repeat steps 3-7 for the inner blade guide roller.

**NOTE:** Once the blade guides have been adjusted, any cutting variances are most likely caused by the blade. **See the Wood-Mizer® Blade Handbook, Form #600.** 

MHdoc092116 5-18

#### 5.12 Blade Height Scale Adjustment

After the entire resaw has been aligned and all adjustments have been made, check that the blade height scale indicates the true distance from the blade to the feed track chain.

**1.** Measure from the bottom edge on a down-set tooth of the blade to the top of the feed track chain.

#### See Figure 5-18.

2. View the blade height scale with eyes level with the indicator.

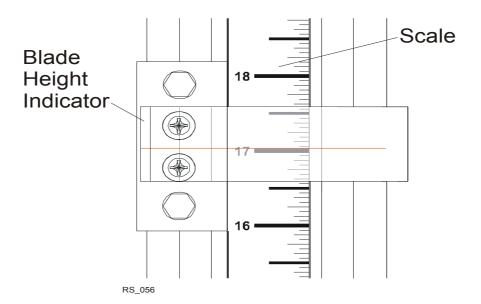


FIG. 5-18

**3.** Loosen the indicator bracket mounting bolts and adjust the bracket until the indicator is aligned with the correct mark on the scale. Retighten the bracket mounting bolts.

For example, if the measurement from the blade to the feed track chain is  $100 \text{ mm} (3.9^{\circ})$ , make sure the indicator reads  $100 \text{ mm} (3.9^{\circ})$  on the scale.

5-19 MHdoc092116

#### **SECTION 6 SPECIFICATIONS**

#### 6.1 Overall Dimensions

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

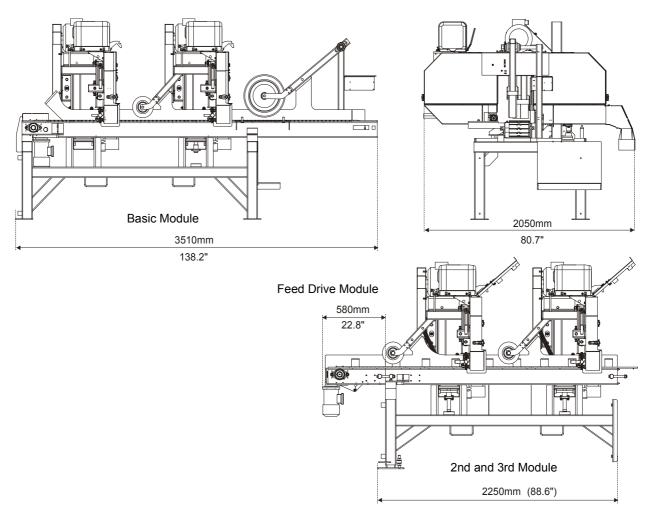


FIG. 6-1

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

Weight	1552 kg (3422 lb) (base 2-head module) 1290 kg (2844 lb) (2-head extension)
Height	1900 mm (74.8")
Width	2050 mm (80.7")
Length	First Module: 3510 mm (138.2") Second and Third Module: 2250mm (88.6")

TABLE 6-1

**See Figure 6-2.** The major dimensions of the Idle Roller Table (SLPIRT) are shown below.

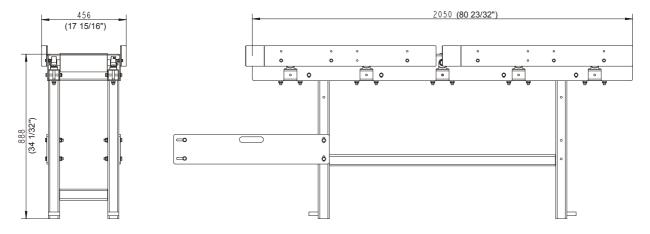
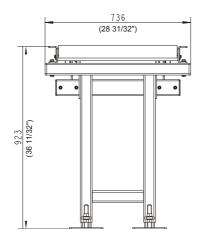


FIG. 6-2

**See Figure 6-3.** See the figure below for the major dimensions of the Cross Roller Table (SLPCRT).



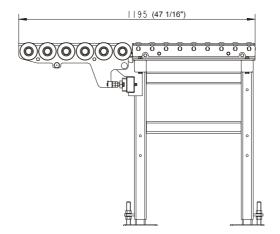


FIG. 6-3



**See Figure 6-4.** The figure below shows locations of the resaw legs.

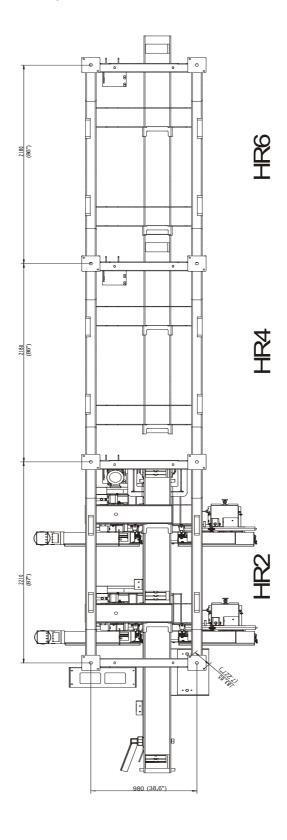


FIG. 6-4

## 6.2 Cutting Capacity

**See Table 6-2.** The material size and performance capacities of the resaw are given below.

Cutting Length	0.9 - 3.6 m (3-11.8 ft)
Material Height	10-400 mm (0.4 - 16")
Material Height (with optional rollers)	0-150 mm (0-11.8")
Material Width	75-280 mm (3-11")
Feed Speed	0-25m (0- 82ft)/min
Minimum Cutting Height	4 mm (0.16")
Maximum Cutting Height (manual up/down system)	200 mm (7.9")
Maximum Cutting Height (auto- matic up/down system)	180 mm (7.1")
Distance Between Saw Blades	1090 mm (42 29/32")

TABLE 6-2

**See Table 6-3.** Wood-Mizer TRU•SHARP™ offers three types of blades to provide efficient sawing. The type of wood you saw should determine which blade you choose for optimum performance.

Motor Size	Recommended Blade Type		
	Softwood	Medium Hardwood	Frozen Timber or Dense Hardwood
5 HP - 15 HP	.042 x 7/8 x 1 1/4"	.042 x 7/8 x 1 1/4 "	.045 x 7/8 x 1 1/4" F1

#### 6.3 Blade Motor Specifications

**See Table 6-4.** See the table below for blade motor specifications for your resaw model.

Motor Type	Manufacturer	Model	Power	Other Specifications
E11 Electric	Indukta	Sg 132M-4- HM	7,5kW	400 V/50Hz; 15 Amp; 1450 r.p.m.
E15 Electric	Indukta	Pssg 132M-4A-HM	11kW	400 V/50Hz; 23 Amp; 1450 r.p.m.
E15 Electric	Siemens	1LE 1002-1CB 63-4AA4-2 N02	12.6kW	460 V/60Hz; 21.5 A; 1740 r.p.m.

TABLE 6-4

#### 6.4 Noise Level

**See Table 6-5.** The noise levels of the resaw are listed below 12.

	Noise level
HR2E11/15S	L <sub>EX8</sub> = 94,0 dB (A) (cant loading) L <sub>EX8</sub> = 94,0 dB (A) (cant receiving)
HR3E11/15S	$L_{EX8}$ = 96,7 dB (A) (cant loading) $L_{EX8}$ = 86,2 dB (A) (cant receiving)
HR4E11/15S	$L_{EX8}$ = 96,7 dB (A) (cant loading) $L_{EX8}$ = 92,9 dB (A) (cant receiving)

**TABLE 6-5** 

6-6 MHdoc092116 Specifications

<sup>1.</sup> 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.

<sup>2.</sup> 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.

#### 6.5 V-Belt Sizes

**See Table 6-6.** Belt sizes for the resaw are shown.

Belt Description	Belt Size	Wood-Mizer Part No.
Drive Belt (E15)	2BX70	P04857-2
Blade Wheel Belt	B72.5	017922

**TABLE 6-6** 

#### 6.6 Dust Extractor Specifications

**See Table 6-7.** Specifications of the dust extractors used on the resaw for each saw head are listed below.

Airflow	1200 m <sup>3</sup> /h 3937ft <sup>3</sup> /h
Inlet diameter	150 mm (5.9")
Motor power	1,5 kW
Number of sacks	1 pcs
Sack capacity	0,25 m <sup>3</sup> (8.8 ft) <sup>3</sup>
Weight	110 kg (242.5 lb)
Recommended conveying air velocity in the duct	20 m/s 65.6 ft/s

TABLE 6-7



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



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

#### SECTION 7 REPLACEMENT PARTS

#### 7.1 How To Use The Parts List

- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (♦) are only available in the assembly listed above the part.

See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (♦) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (♦) indicates M06666 is not available except in subassembly K05555.

7.1	Sample Assembly			
REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	SAMPLE ASSEMBLY, COMPLETE (INCLUDES ALL INDENTED PARTS BELOW)	A01111	1	
1	Sample Part	F02222-22	1	
2	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	•
3	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	•
4	Sample Part	F07777-77	1	

#### To Order Parts:

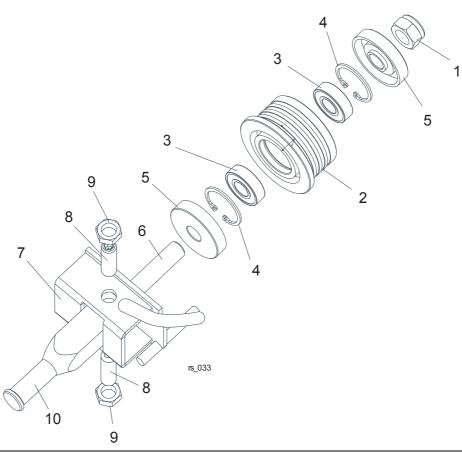
From Europe call your local distributor or our European Headquarters and Manufacturing Facility in Kolo, Nagórna 114 St, Poland at **+48-63-2626000** or **+48-3912-1319**. From the continental U.S., call at **1-800-448-7881**. Have your customer number, vehicle identification number, and part numbers ready when you call. From other international locations, contact the Wood-Mizer distributor in your area for parts.



**CAUTION!** It is strongly recommended that only original spare parts be used.

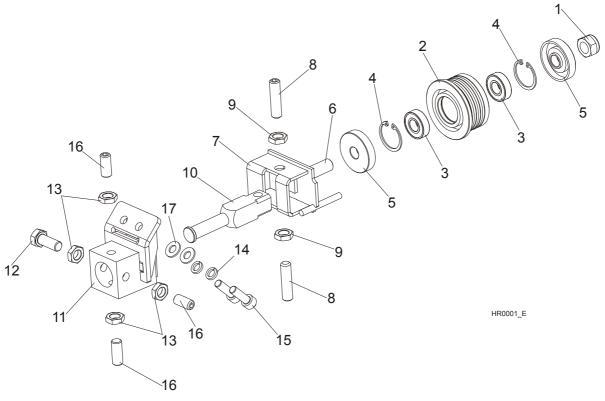
7-1 HRdoc092116 REPLACEMENT PARTS

# 7.2 Blade Guide Assembly, Idle Side



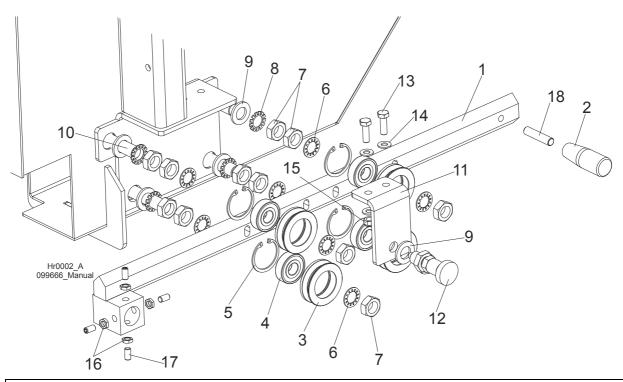
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BLADE GUIDE ASSEMBLY, HR IDLE SIDE	500500	1	
	ROLLER, HR BLADE GUIDE NARROW W/BEARINGS	500499	1	
1	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	1	
2	ROLLER, BLADE GUIDE NARROW	500098	1	•
3	BEARING, 6001 2RSR NACHI	087893	2	
4	RING, W28 INSIDE RETAINING	F81090-9	2	
5	WASHER, ZINC-PLATED SPACER	087891-1	2	
6	SHAFT, BLADE GUIDE ROLLER ZINC-PLATED	087763-1	1	
7	BRACKET WELDMENT, IS BLADE GUIDE ZINC-PLATED	500497-1	1	
8	SCREW, M10X1X40 DIN913 STAINLESS STEEL SET	F81015-2	2	
9	NUT, M10X1-04-ST-A2 ISO 8675 THIN	F81033-10	2	
10	SHAFT, BLADE GUIDE MOUNT ZINC-PLATED	088255-1	1	

## 7.3 Blade Guide Assembly, Drive Side



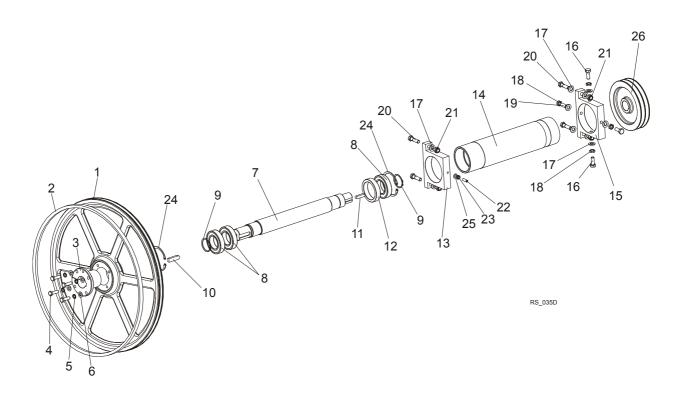
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	=
	BLADE GUIDE ASSEMBLY, HR DRIVE SIDE	500501	1	
	ROLLER, HR BLADE GUIDE NARROW W/BEARINGS	500499	1	
1	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	1	
2	ROLLER, BLADE GUIDE NARROW	500098	1 4	<b>•</b>
3	BEARING, 6001 2RSR NACHI	087893	2	
4	RING, W28 INSIDE RETAINING	F81090-9	2	
5	WASHER, ZINC-PLATED SPACER	087891-1	2	
6	SHAFT, BLADE GUIDE ROLLER ZINC-PLATED	087763-1	1	
7	BRACKET WELDMENT, DS BLADE GUIDE ZINC-PLATED	500498-1	1	
8	SCREW, M10X1X40 DIN913 STAINLESS STEEL SET	F81015-2	2	
9	NUT, M10X1-04-ST-A2 ISO 8675 THIN	F81033-10	2	
10	SHAFT, BLADE GUIDE MOUNT ZINC-PLATED	088255-1	1	
	BLOCK, BLADE GUIDE MOUNT - COMPLETE	507316	1	
11	BLOCK WELDMENT, BLADE GUIDE MOUNT	514887-1	1	
12	BOLT, M10X1X25 DIN 933 STAINLESS STEEL	F81003-28	1	
13	NUT, M10X1-04-ST-A2E ISO8675 THIN	F81033-10	4	
14	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	2	
15	SCREW,M8x25-8.8 HEX SOCKET HEAD CAP ZINC	F81002-21	2	
16	SCREW, M10X1X20 DIN 913 STAINLESS STEEL SET	F81015-1	3	
17	WASHER, 8.4 FLAT,ZINC	F81054-1	2	

# 7.4 Blade Guide Arm Assembly



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
1	ARM, ADJUSTABLE ZINC-PLATED BLADE GUIDE	099075-1	1
2	HANDLE, M10 THREAD	089445	1
	ROLLER ASSEMBLY, V-GROOVE W/BEARING	093855	4
3	ROLLER, V-GROOVE ZINC-PLATED	093856-1	1
4	BEARING, 6203 2RSP6-5/8 CX	095087	1
5	RING, W40 INSIDE RETAINING	F81090-3	1
6	WASHER, 5/8" INTERNAL STAR	F05011-25	8
7	NUT, 5/8"-18 HEX ZINC	F05010-11	12
8	WASHER, 5/8" EXTERNAL STAR	F05011-26	4
9	WASHER, 17 FLAT ZINC	F81058-1	5
10	BOLT WELDMENT, ECCENTRIC	086508-1	4
11	BRACKET, DETENT PIN MOUNT	099077-1	1
12	PIN, 45308DNW DETENT	089939	1
13	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	2
14	WASHER, 8.4 FLAT ZINC	F81054-1	4
15	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2
16	NUT, M10X1-04-ST-A2 ISO 8675 THIN	F81033-10	4
17	SCREW, M10X1X20 DIN913 STAINLESS STEEL SET	F81015-1	4
18	BOLT M10X35-8.8	F81003-9	1

## 7.5 Blade Wheel Assembly, Drive Side

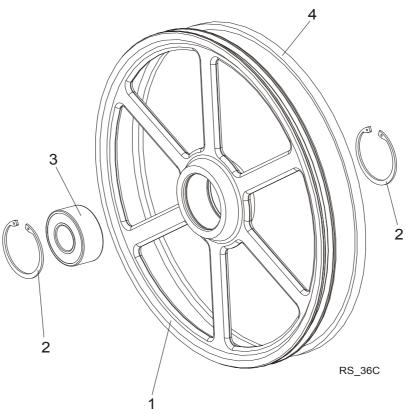


REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
1	WHEEL, RESAW BLADE DRIVE SIDE	500100-1	1
2	V-BELT, B72.5	017922-1	1
3	BUSHING, 45 SPLIT TAPER	500099	1
4	BOLT, M10X35 8.8 HEX HEAD FULL THREAD	F81003-17	4
5	WASHER, 10.2 SPLIT LOCK ZINC	F81055-2	4
6	WASHER, 10.5 FLAT ZINC	F81055-1	4
	SHAFT ASSEMBLY, RESAW DRIVE-SIDE BLADE WHEEL	093239	1
7	Shaft, Resaw Drive-Side Blade Wheel	093238	1
8	Bearing, 6210 2RSR	093237	3
9	Ring, Z50 Outside Retaining	F81090-28	2
10	Key, AB 14x9x50 Parallel	093266	1
11	Key, A10x8x45 PN-91/M-85005 Parallell	091312	1
12	Bushing, Main Shaft Spacer	094439	1
13	Bracket, Drive Shaft Adjustment Zinc-Plated	093255-1	1
14	Bushing, Drive Shaft Housing	093234-1	1
15	Bracket, Drive Shaft Bushing Mount Zinc-Plated	094535-1	1
16	Bolt, M12x1,25x30 DIN933 A2-70 Stainless Steel	F81004-44	3
17	Washer, 13 Fe/Zn5 Flat Zinc	F81056-1	4
18	Nut, M12x1.25 DIN439 Thin Stainless Steel	F81034-9	4
19	Screw, M12x1.25x30 DIN913 Stainless Steel Set	F81016-1	1
20	Bolt, M12x45-8.8 Hex Head Zinc	F81004-32	4

7-5 HRdoc092116 REPLACEMENT PARTS

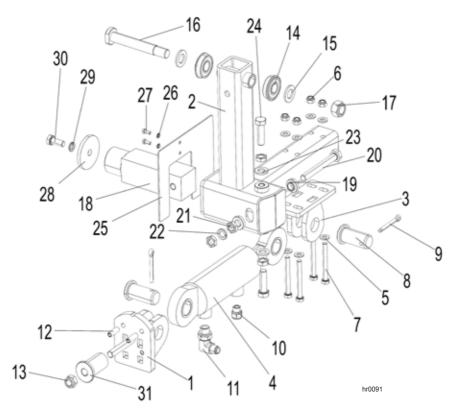
21	Nut, M12-8 Hex Nylon Zinc Lock	F81034-2	4	
22	Screw, M8x25 A2-70 DIN 913 Stainless Steel Set	F81014-3	1	
23	Nut, M8-8-B Hex Nylon Zinc Lock	F81032-2	1	
24	Ring, W90 Inside Retaining	F81090-29	2	
25	Washer, 8.4 Flat Zinc	F81054-1	1	
26	PULLEY, SPB Φ224X2/Φ38 (F02312+T31124)	500177	1	
	PULLEY, SPB Φ190X2/Φ38 (F02347+T31124)	500569	1	

# 7.6 Blade Wheel Assembly, Idle Side



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	WHEEL, IDLE-SIDE BLADE - COMPLETE	088764	1	
1	Wheel, Idle-Side Blade	090810	1	
2	Ring, W100 Inside Retaining	F81090-10	2	
3	Bearing, 3309B.2RSR.TVH FAG	086428	1	
4	V-BELT, B72.5	017922-1	1	

# 7.7 Hydraulic Blade Tensioner Assembly



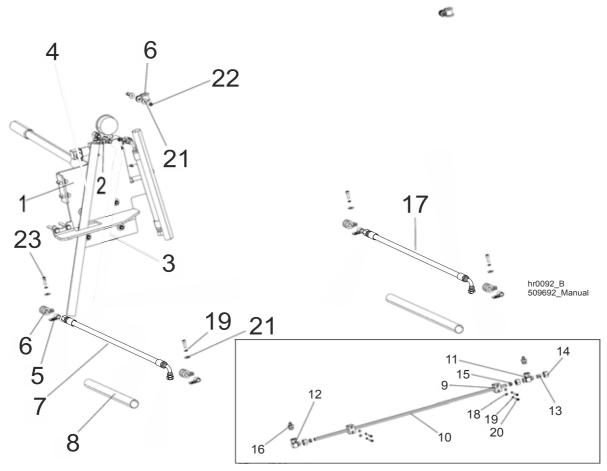
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	HR/SHS HYDRAULIC BLADE TENSIONER - COMPLETE	506750	1	
1	BRACKET, PISTON CYLINDER MOUNT	506751-1	1	
2	ARM WELDMENT, TVS IDLE BLADE WHEEL (RIGHT-SIDE SAW HEAD)	504817-1	1	
3	BRACKET, PISTON CYLINDER UPPER MOUNT	504819-1	1	
4	CYLINDER, SJ2F-16-50/28/70 PISTON	504812	1	
5	WASHER, 8.4 FLAT ZINC	F81054-1	8	
6	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	4	
7	BOLT, M8x70-8.8 HEX HEAD ZINC	F81002-71	4	
8	PIN	504824-1	2	
9	PIN, S-Zn-6.3x45 COTTER	F81045-2	2	
10	SILENCER, TYPE 2901-14-17	090794	1	
11	FITTING, 90\$ - 3/8 BSP - 9/16 JIC ELBOW	096335	1	
12	PIN, 8x26 ROLL ZINC	F81046-4	2	
13	NUT, M12 8 HEX NYLON ZINC LOCK	F81034-2	1	
14	BEARING, 6203-2RS NR. W/SNAP RING	086395	2	
15	WASHER, 17 SPLIT LOCK ZINC	F81058-1	2	
16	BOLT, ARM BEARING MOUNT	086404	1	
17	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	1	
18	SHAFT, IDLE-SIDE BLADE WHEEL	088474	1	
19	WASHER, FLANGED ZINC-PLATED	086769-1	2	
20	BOLT, M12x1.25x100-8.8 HEX HEAD FULL THREAD ZINC	F81004-41	1	

7-7 HRdoc092116 REPLACEMENT PARTS

# REPLACEMENT PARTS Hydraulic Blade Tensioner Assembly

21	NUT, M12X1.25-8 THIN ZINC	F81034-5	4	
22	WASHER, Z12.2 SPLIT LOCK ZINC	F81056-2	1	
23	WASHER, 13 FLAT ZINC	F81056-1	2	
24	BOLT, M12x1.25x40-8.8 HEX HEAD FULL THREAD ZINC	F81004-42	2	
25	GUARD, IDLE BLADE WHEEL ARM	088442-1	1	
26	WASHER, 5.1 SPLIT LOCK ZINC	F81052-2	2	
27	BOLT, M5X12 5.8 HEX HEAD FULL THREAD ZINC	F81000-5	2	
28	WASHER, IDLE BLADE WHEEL RETAINING	088957-1	1	
29	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	1	
30	BOLT, M10X25 8.8 HEX HEAD FULL THREAD	F81003-31	1	
31	BUSHING, 28.5 TO 13 REDUCER ZINC-PLATED	508708-1	1	

## 7.8 Hydraulic Blade Tensioner



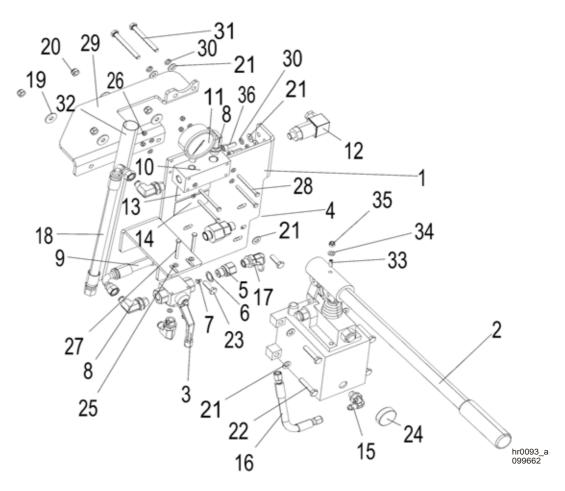
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	HYDRAULIC BLADE TENSIONER FOR HR500-1 - COMPLETE	509691	1
	HYDRAULIC PUMP ASSEMBLY, SHS/HR500/HR700	506733	1
	HOSE, PHD 2T3/8x0.43 90W9/16UNF-90W9/16UNF HYDRAULIC	506737	1
	GUARD, OBLIQUE HOSE	508714	1
	HYDRAULIC BLADE TENSIONER FOR HR500-2 - COMPLETE	509692	1
1	HYDRAULIC PUMP ASSEMBLY, SHS/HR500/HR700	506733 <sup>1</sup>	1
2	FEETING, BBA UNF 9/16" TEE W/NUT	509687	1
3	HOSE, PHD 2T3/8x0.43 90W9/16UNF-90W9/16UNF HYDRAULIC	506737	1
4	GUARD, OBLIQUE HOSE	508714	2
5	CLAMP, 1/2" EMT COATED	P07584	4
6	CLAMP, RSGU 1.15/20 METAL & RUBBER	509701	6
7	HOSE, PHD 2T3/8x2.85 90W9/16UNF-W9/16UNF HYDRAULIC	509718	1
8	GUARD, VERTICAL HOSE	508713	1
9	BLOCK, DN15 APP-L-15 PIPE BRACKET	509720	2
10	PIPE, L=1050.	509699	1
11	FITTING, XEVT 15 L 22x1.5 TEE W/NUT	509688	1
12	FITTING, XEVW 15 L 22x1.5 ELBOW W/NUT	509689	1

# Hydraulic Blade Tensioner

13	CAP, DKL 22x1.5 15 L.	509698	1	
14	NUT, M 15 L M22x1.5	509690	3	
15	SLEEVE, DPR 15 L. PIPE CLINCH	509697	2	
16	FITTING, 9/16"-18 UNF - M22x1.5 ZINC-PLATED REDUCER	510446-1	2	
17	HOSE, PHD 2T3/8x2.85 90W9/16UNF-W9/16UNF HYDRAULIC	509719	1	
18	WASHER, 6.4 FLAT ZINC	F81053-1	4	
19	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	8	
20	SCREW, M6x35 8.8 HEX SOCKET HEAD CAP ZINC	F81001-23	4	
21	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	8	
22	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2	
23	SCREW, M6x20 8.8 HEX SOCKET HEAD CAP ZINC	F81001-22	6	
	HYDRAULIC BLADE TENSIONER FOR HR500-3 - COMPLETE	509693	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-1 - COMPLETE	509691	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-2 - COMPLETE	509692	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-4 - COMPLETE	509694	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-2 - COMPLETE	509692	2	
	HYDRAULIC BLADE TENSIONER FOR HR500-5 - COMPLETE	509695	1	
-	HYDRAULIC BLADE TENSIONER FOR HR500-1 - COMPLETE	509691	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-2 - COMPLETE	509692	2	
	HYDRAULIC BLADE TENSIONER FOR HR500-6 - COMPLETE	509696	1	
	HYDRAULIC BLADE TENSIONER FOR HR500-2 - COMPLETE	509692	3	

<sup>&</sup>lt;sup>1</sup> See Section 7.9

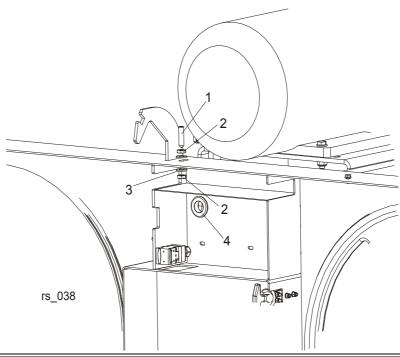
## 7.9 Hydraulic Pump Assembly



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	HYDRAULIC PUMP ASSEMBLY, SHS/HR500/HR700	506733	1
1	PLATE, MOUNTING	506734-1	1
2	PUMP, PMS12/TNK1 W/ONE-LITER TANK	092789	1
3	VALVE, RSAP3 VO2L G3/8" 3-WAY BALL	504803	1
4	VALVE, RHV12LREDA3C (HVR NW10MLED) CHECK	094559	1
	FITTING, G 3/8 W/NOZZLE	096849	1
5	FITTING, G3/8 ZINC-PLATED SPECIAL	096850-1	1
6	WASHER, 16 COPPER	F81058-3	1
7	NOZZLE, D092-O 1MM DIA. PROPANE&BUTANE	091007	1
8	FITTING, 90\$ - 3/8 BSP - 9/16 JIC ELBOW	096335	4
9	HYDRAULIC HOSE, 3/8' W/DKJ 90 DN10 9/16 UNF/DKOL DN10 M18x1.5 END FITTINGS	504831	1
10	BLOCK, MOUNTING	504829-1	1
11	GAUGE, 200 BAR (3000PSI) PRESSURE	505176	1
12	SWITCH, F4Z1/M3-20 BAR PRESSURE	504830	1
13	DECAL, PRESSURE VALUE SETTING	505348	1
14	DECAL, TVS BLADE TENSIONER HANDLE POSITION	505346	1

				_
15	FITTING, CA-204410-3 (W90HROKO4HJ) G1/4-JIC37.7/16-20 ELBOW	094562	1	
16	HOSE, 1/4 (0.19m) HYDRAULIC	505174	1	
17	FITTING, CA-204411-3 (W90HROKO6HJ04) G3/8-JIC37.7/16-20 ELBOW	094563	1	
18	HOSE, PHD 2T3/8x0.27 90W9/16UNF-W9/16UNF HYDRAULIC	506736	1	
19	WASHER, ISO 7093-1-8-200 HV-A2E	F81054-11	4	
20	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	6	
21	WASHER, 8.4 FLAT ZINC	F81054-1	14	
22	BOLT, M8X40-8.8 HEX HEAD FULL THREAD ZINC	F81002-15	4	
23	BOLT, M8x25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	2	
24	MAGNET, MW 38x12/N38 NEODYMIUM	500022	1	
25	WASHER, 5.3 FLAT ZINC	F81052-1	12	
26	NUT, M5-8-FE/ZN5 DIN985	F81030-2	6	
27	BOLT, M5x45 DIN933-A2-70 STAINLESS STEEL	F81000-22	2	
28	BOLT, M5X60 8.8 HEX HEAD ZINC	F81000-36	4	
29	BRACKET, SUPPORT	506732-1	1	
30	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	6	
31	BOLT, M8x75-8.8 HEX HEAD ZINC	F81002-91	2	
32	GUARD, VERTICAL HOSE	508713	1	
33	LATCH, GN 615.3-M6-KN BALL THREADED	096874	1	
34	WASHER, 6.4 FLAT ZINC	F81053-1	1	
35	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	1	
36	SCREW, M8x20-8.8 HEX SOCKET HEAD CAP ZINC	F81002-30	4	

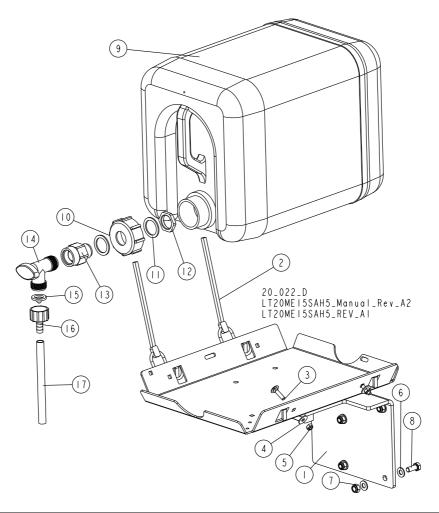
## 7.10 Middle Throat Screw



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
1	SCREW, M10X40-45H HEX SOCKET SET CONE POINT ZINC	F81003-61	1	
2	NUT, M10-8-B HEX ZINC	F81033-6	2	
3	WASHER, 10.5 FLAT ZINC	F81055-1	2	
4	GROMMET, 22 MM DIA. RUBBER	087400	1	

7-13 HRdoc092116 REPLACEMENT PARTS

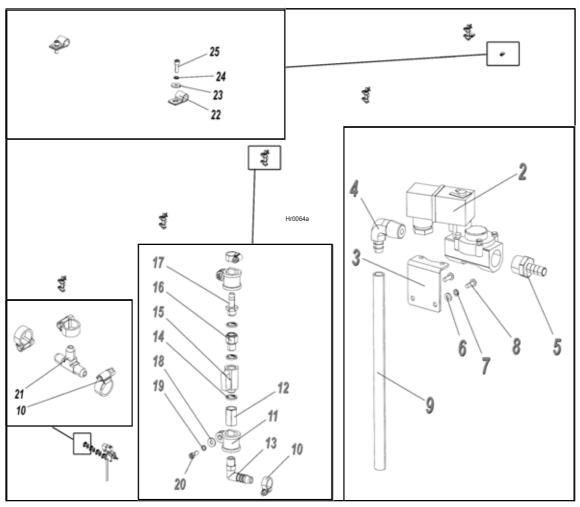
# 7.11 Water Lube Assembly (Option)



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	BOTTLE KIT, LT20 WATER LUBE	091036	1	
1	TRAY WELDMENT, LT20 WATER LUBE	091033-1	1	
2	STRAP, 20 RUBBER W/HOOK	P11668	2	
3	BOLT, M6X25-8.8 CARRIAGE HEAD ZINC	F81001-20	2	
4	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	2	
5	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2	
6	WASHER, 8.4 FLAT ZINC	F81054-1	8	
7	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
8	BOLT, M8X20-8.8-B HEX HEAD FULL THREAD ZINC	F81002-4	4	
	BOTTLE, WATER - COMPLETE	513864	1	
	BOTTLE, WATER W/NUT	513865	1	
9	BOTTLE, WATER	513866	1	
10	NUT, WATER BOTTLE	513867	1	
11	SEAL, 35X26X2 RUBBER	513869	2	
12	NUT, 3/4 NPT GLAND	513868	1	

REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
13	FITTING, 3/4FPTX3/4MPT	014636	1	
14	VALVE, 3/4 NPT ELBOW 3/4 MALE OUTLET PVC	014100	1	
15	FILTER, WATER LUBE	016086	1	
16	REDUCER, 5/8NPT/3/8BARB WATER LUBE	014113	1	
17	TUBING, WATER LUBE	R01885	1	

# 7.12 Blade Lube System

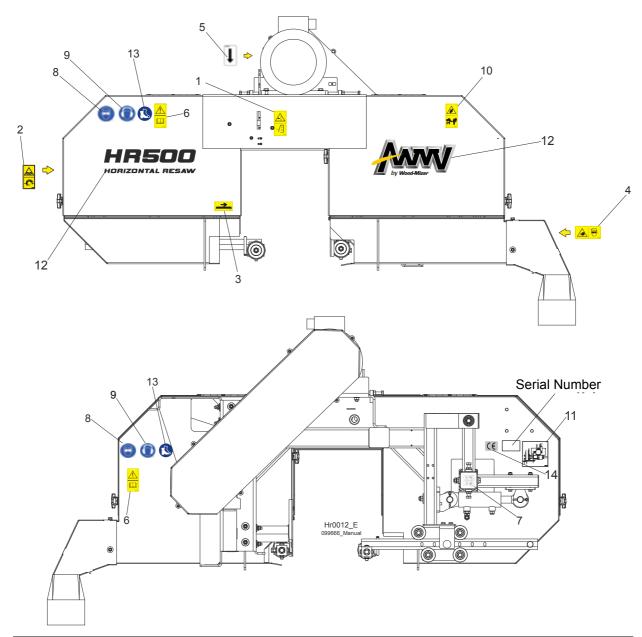


REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	KIT, HR500 BLADE LUBE SYSTEM - 1 HEAD	502688-1	1/0/0/0/0/0
	KIT, HR500 BLADE LUBE SYSTEM - 2 HEADS	502688-2	0/1/0/0/0/0
	KIT, HR500 BLADE LUBE SYSTEM - 3 HEADS	502688-3	0/0/1/0/0/0
	KIT, HR500 BLADE LUBE SYSTEM - 4 HEADS	502688-4	0/0/0/1/0/0
	KIT, HR500 BLADE LUBE SYSTEM - 5 HEADS	502688-5	0/0/0/0/1/0
	KIT, HR500 BLADE LUBE SYSTEM - 6 HEADS	502688-6	0/0/0/0/0/1
1	VALVE, BLADE LUBE SYSTEM SOLENOID - COMPLETE	509702	1/1/1/1/1/1

Blade Lube System

2	VALVE, ASCO SCE238A002 24V DC SOLENOID	510270	1
3	BRACKET, SOLENOID VALVE ZINC-PLATED	092870-1	1
4	FITTING, 1/2"NPT-3/8" BARB ELBOW	P12707	1
5	FITTING, 1/2" HOSE	092356	1
6	WASHER, 4.3 FLAT ZINC	F81051-2	2
7	WASHER, Z 4.1 SPLIT LOCK ZINC	F81051-1	2
8	SCREW, M4X12-5.8-B CROSS RECESSED PAN HEAD ZINC	F81011-43	2
9	TUBING, 3/8" -1 HEAD	509704	1/0/0/0/0/0
	TUBING, 3/8" - 2 HEADS	509705	0/1/0/0/0/0
	TUBIBG, 3/8" - 3 HEADS	509706	0/0/1/0/0/0
	TUBING, 3/8" - 4 HEADS	509707	0/0/0/1/0/0
	TUBING, 3/8" - 5 HEADS	509708	0/0/0/0/1/0
	TUBING, 3/8" - 6 HEADS	509709	0/0/0/0/0/1
10	CLAMP, 12-20MM DIA. HOSE	F81080-3	3 / 8 / 13 / 18 / 23 / 28
11	CLAMP, RSGU 1.20/20 W1 METAL & RUBBER	F81087-2	2/4/6/8/10/12
12	SLEEVE, G1/4W/G1/4W 1823300001	090808	1/2/3/4/5/6
13	FITTING, WES 10/R 1/4 ELBOW	088379	1/2/3/4/5/6
14	SEAL, G1/4 866-014-000-0	090809	3/6/9/12/15/18
15	VALVE, FP60.KIT 28 G1/4	088380	1/2/3/4/5/6
16	ADAPTER, 2521 1/4-1/4 (CAMOZZI)	097704	1/2/3/4/5/6
17	BUSHING, GT13/09 NR 13539	092783	1/2/3/4/5/6
18	WASHER, 5.5 SPECIAL FLAT ZINC	F81052-3	2/4/6/8/10/12
19	WASHER, 5.1 SPLIT LOCK	F81052-2	2/4/6/8/10/12
20	SCREW, M5X16-8.8 HEX SOCKET HEAD CAP ZINC-PL.	F81000-25	2/4/6/8/10/12
21	FITTING, 3/8 BARB TEE	015485	0/1/2/3/4/5
22	CLAMP, 1/2" EMT COATED	P07584	2/0/2/0/2/0
23	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	2/0/2/0/2/0
24	WASHER, Z 6.1 SPLIT LOCK	F81053-3	2/0/2/0/2/0
25	SCREW, M6X16 8.8 HEX SOCKET HEAD CAP ZINC	F81001-21	2/0/2/0/2/0

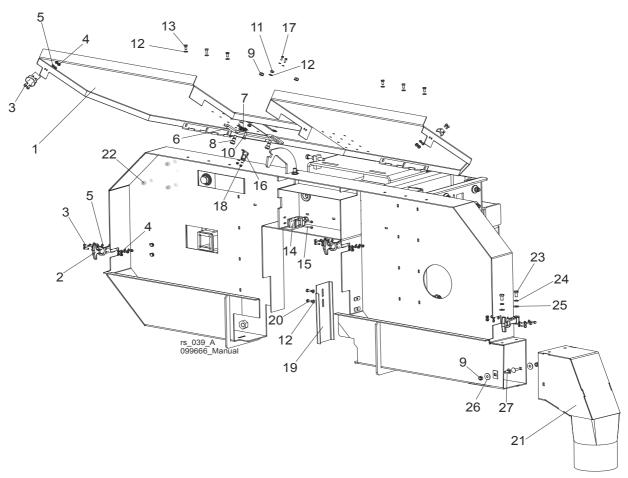
# 7.13 HR Saw Head Warning Decals



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	DECAL KIT FOR HR1	099821	1
1	DECAL, SAWMILL COVERS CAUTION	099220	1
2	DECAL, BLADE TENSION (PICTOGRAM)	099219	1
3	DECAL, BLADE MOVEMENT DIRECTION (PICTOGRAM)	096321	1
4	DECAL, SAWDUST CHUTE WARNING (PICTOGRAM)	099222	1
5	DECAL, MOTOR ROTATION DIRECTION	S20097	1
6	DECAL, READ THE OPERATOR'S MANUAL (PICTOGRAM)	096317	2
7	DECAL, BLADE ALIGNMENT	P11789	1
8	DECAL, EYE PROTECTION WARNING (PICTOGRAM)	S12004G	2

9	DECAL, EAR PROTECTION WARNING (PICTOGRAM)	S12005G	2	
10	DECAL, KEEP A SAFE DISTANCE AWAY (PICTOGRAM)	099221	1	
11	DECAL, BLADE TENSION INDICATOR ADJUSTMENT (PICTOGRAM)	092597	1	
12	DECAL KIT, "HR" MACHINE NAME	099585	1	
13	DECAL, USE SAFETY BOOTS (PICTOGRAM)	501465	2	
14	DECAL, CE CERTIFIED SAWMILL (SMALL)	P85070	1	
	DECAL KIT FOR HR2	099822	1	
	DECAL KIT FOR HR1	099821	2	
	DECAL KIT FOR HR3	099823	1	
	DECAL KIT FOR HR1	099821	3	
	DECAL KIT FOR HR4	099824	1	
	DECAL KIT FOR HR1	099821	4	
	DECAL KIT FOR HR5	099825	1	
	DECAL KIT FOR HR1	099821	5	
	DECAL KIT FOR HR6	099826	1	
	DECAL KIT FOR HR1	099821	6	

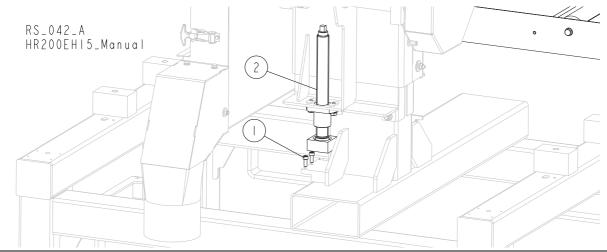
# 7.14 Blade Housing Cover



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
1	COVER WELDMENT, RESAW BLADE HOUSING	093251-1	1
2	LATCH, FLEXIBLE DRAW	014829	3
3	BOLT, M5X16-5.8 HEX HEAD FULL THREAD ZINC	F81000-51	12
4	NUT, M5-8-FE/ZN5 DIN 985	F81030-2	12
5	WASHER, 5.3 FLAT ZINC	F81052-1	24
6	PAWL, LOCKING	090643-1	1
7	SPRING, 1.6X12X38 EXTENSION	092208	1
8	BOLT, 10/M8X12-12.9 ISO-7379 SHOULDER	F81003-62	2
9	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4
10	BOLT, M6X20-8.8 HEX HEAD FULL THREAD ZINC	F81001-2	1
11	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2
12	WASHER, 6.4 FLAT ZINC	F81053-1	10
13	BOLT, M6X12-8.8 HEX HEAD FULL THREAD ZINC	F81001-7	6
14	SWITCH, AZ17-11ZRK SAFETY	094232	1
15	SCREW, M4X35 -8.8 HEX SOCKET HEAD CAP ZINC	F81011-34	2
16	KEY, AZ17/170-B5 SAFETY SWITCH	094422	1
17	SCREW, M4X12-5.8-B CROSS RECESSED PAN HEAD ZINC	F81011-43	2

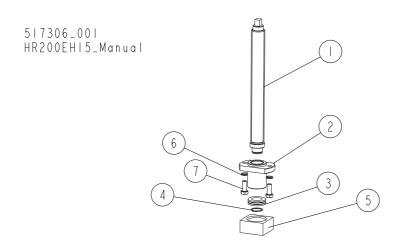
18	NUT, M4-B HEX NYLON ZINC LOCK	F81029-1	2	
19	GUARD, BLADE GUIDE ROLLER	094737-1	1	
20	BOLT, M6X16 8.8 HEX HEAD FULL THREAD ZINC	F81001-15	2	
21	CHUTE, RESAW SAWDUST	094059-1	1	
22	PLUG, SR1086-9.5	096846	3	
23	BOLT, M8X16-8.8-B HEX HEAD FULL THREAD ZINC	F81002-20	2	
24	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	2	
25	WASHER, 8.4 FLAT,ZINC	F81054-1	2	
26	WASHER, 8.5 FLAT ZINC	F81054-11	2	
27	BOLT, M8 X 20 CARRIAGE HEAD ZINC	F81002-11	2	

## 7.15 Manual Up/Down System Screws



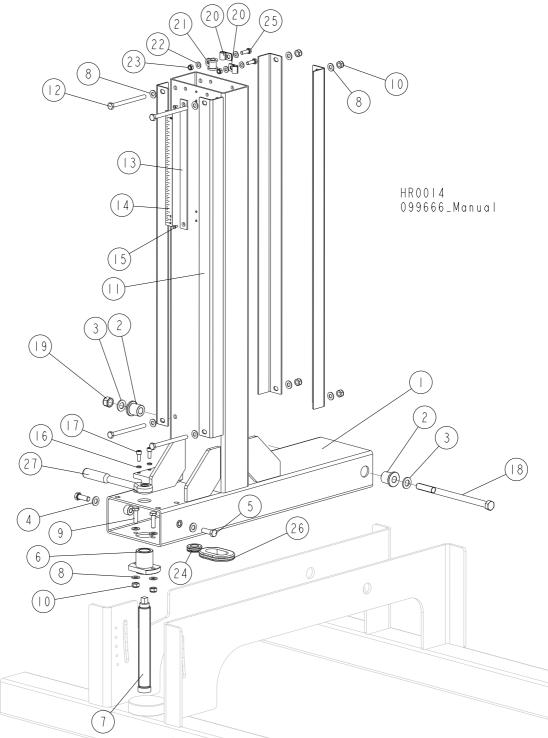
	REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	1	SCREW, M8X20-8.8 HEX SOCKET HEAD CAP ZINC	F81002-30	2	
I	2	UP/DOWN SYSTEM, HR500-1/SHR MANUAL COMPLETE See Section 7.16	517306	1	

# 7.16 Manual Up/Down System



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	UP/DOWN SYSTEM, HR500-1/SHR MANUAL COMPLETE	517306	1
1	SCREW, ACME UP/DOWN ZINC-PLATED	093263-1	1
2	NUT, ACME SCREW FLANGED ZINC-PLATED	093264-1	1
3	BEARING, 51105 THRUST	088033	1
4	RING, 25Z OUTSIDE RETAINING	F81090-22	1
5	BLOCK, ACME SCREW REST ZINC-PLATED	093265-1	1
6	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	2
7	BOLT, M10X25 8.8 HEX HEAD FULL THREAD	F81003-31	2

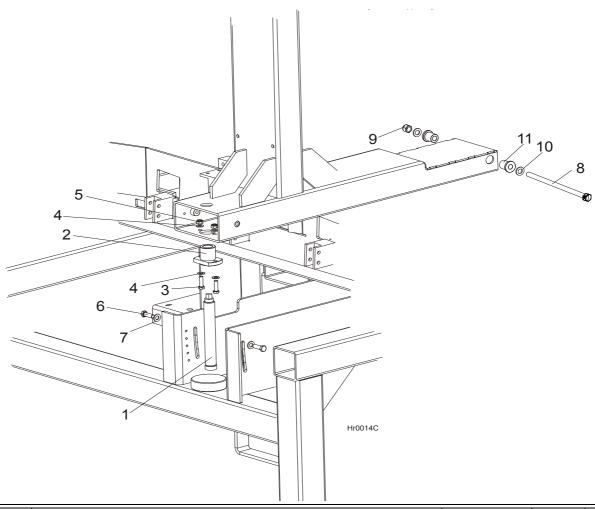
## 7.17 Mast



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	MAST, 2HR COMPLETE	099444	1	
1	MAST WELDMENT, RESAW	093504-1	1	
2	BUSHING, MOUNTING ZINC-PLATED	093507-1	2	
3	WASHER, 17 SPLIT LOCK ZINC	F81058-1	2	

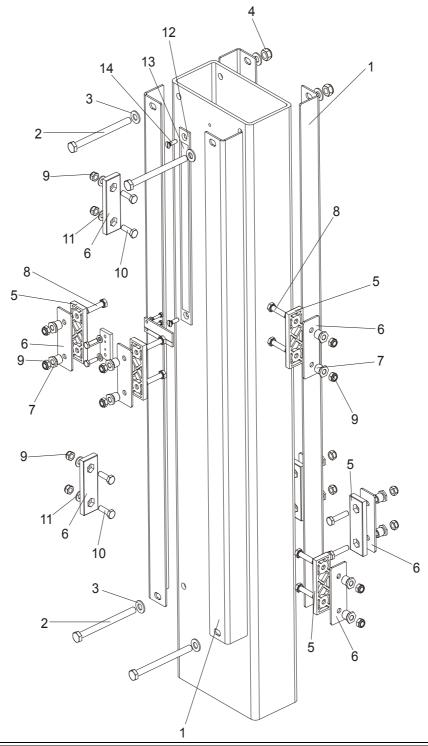
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
4	WASHER, 13 FLAT ZINC	F81056-1	2
5	BOLT, M12X35 8.8 HEX HEAD FULL THREAD ZINC	F81004-24	2
6	NUT, ACME SCREW FLANGED ZINC-PLATED	093264-1	1
7	SCREW, ACME (MAST TILT ADJUSTMENT)	093509-1	1
8	WASHER, 10.5 FLAT ZINC	F81055-1	12
9	BOLT, M10X35 8.8 HEX HEAD FULL THREAD ZINC	F81003-17	2
10	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	6
11	ANGLE, VERTICAL MAST TUBE	093890	4
12	BOLT, M10x125 8.8 HEX HEAD ZINC	F81003-18	4
	SCALE, RESAW BLADE HEIGHT - COMPLETE	094820	1
13	BAR, RESAW SCALE	094818	1
14	SCALE, 0-30 CM METRIC	094819	1
15	SCREW, M5X12- 5.8-B SLOTTED COUNTERSUNK HEAD ZINC	F81000-15	2
16	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	2
17	SCREW, M8x20-8.8 HEX SOCKET HEAD CAP ZINC	F81002-30	2
18	BOLT, ISO4014 M16x260-8.8-A2E HEX HEAD	F81006-47	1
19	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	1
20	CLAMP, 1/2" EMT COATED	P07584	2
21	CLIP, RSGU 1.15/20 PIPE RETAINING	509701	1
22	WASHER, 8.4 FLAT ZINC	F81054-1	4
23	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	2
24	GROMMET, 22 MM DIA. RUBBER	087400	2
25	BOLT, M8x25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	2
26	GROMMET, RUBBER	089532	2
27	WRENCH, LT20 BLADE TENSION	091620	1

# 7.18 Mast Tilt Adjustment Screw



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
1	SCREW, MAST TILT ADJUSTMENT ACME	093509-1	1
2	NUT, ACME SCREW FLANGED ZINC-PLATED	093264-1	1
3	BOLT, M10X35-8.8 HEX HEAD FULL THREAD ZINC	F81003-17	2
4	WASHER, 10.5 FLAT ZINC	F81055-1	4
5	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	2
6	BOLT, M12X35-8.8 HEX HEAD FULL THREAD ZINC	F81004-24	2
7	WASHER, 13 FLAT ZINC	F81056-1	2
8	BOLT, ISO 4014 M16X260-8.8-A2E HEX HEAD	F81006-47	1
9	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2
10	WASHER, 17 SPLIT LOCK ZINC	F81058-1	2
11	BUSHING, MOUNTING	093507	2

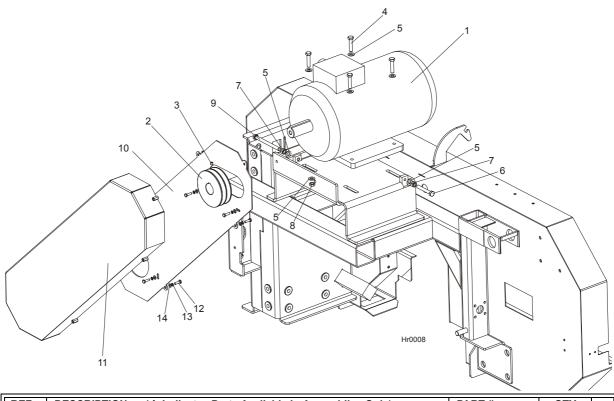
## 7.19 Vertical Mast Slide Pads



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
1	ANGLE, VERTICAL MAST TUBE	093890	4	
2	BOLT, M10X125-8.8 HEX HEAD ZINC	F81003-18	4	
3	WASHER, 10.5 FLAT ZINC	F81055-1	8	

4	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
5	PAD, DELRIN UP/DOWN SLIDE	M04096	8	
6	PLATE, SLIDE PAD MOUNTING	093246-1	6	
7	NUT, SLIDE PAD ADJUSTMENT ZINC-PLATED	086683-1	12	
8	BOLT, M8X35-8.8 HEX HEAD FULL THREAD ZINC	F81002-13	12	
9	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	16	
10	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	4	
11	WASHER, 8.4 FLAT ZINC	F81054-1	4	
	SCALE, RESAW BLADE HEIGHT-COMPLETE	094820	1	
12	Bar, Resaw Blade Height Scale	094818	1	
13	Scale, 0-30 cm Resaw Metric	094819	1	
14	SCREW, M5X12- 5.8-B SLOTTED COUNTERSUNK HEAD ZINC	F81000-15	2	

# 7.20 Motor Assembly

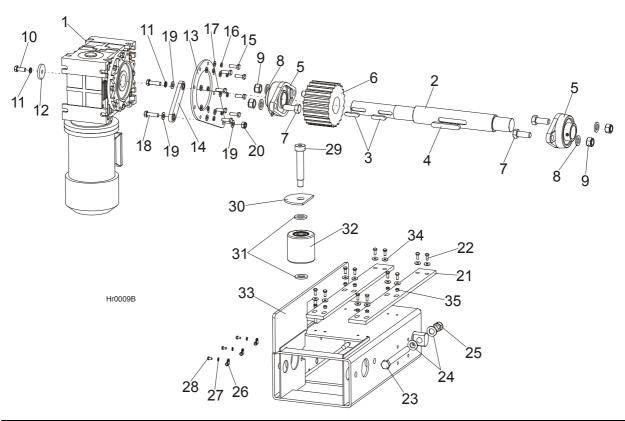


REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
1	MOTOR, 7.5kW Sg132M-4B - HM	094996	1	
	MOTOR, 11kW Sg132M-4PC - HM	093219	1	
2	PULLEY, SPB Φ100X2/Φ38 (F02312+T31079)	500176 <sup>1</sup>	1	
	PULLEY, SPB Φ125X2/Φ38 (F02320+F31109)	500570 <sup>2</sup>	1	
3	SCREW, M8X8-33H HEX SOCKET FLAT POINT ZINC SET	F81014-1	1	
4	BOLT, M10X45-8.8 HEX HEAD FULL THREAD ZINC	F81003-3	4	
5	WASHER, 10.5 FLAT ZINC	F81055-1	10	
6	BOLT, M10X70-8.8 HEX HEAD FULL THREAD ZINC	F81003-20	1	

7	NUT, M10-8-B HEX ZINC	F81033-3	2	
8	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
9	BOLT, M10X120 8.8 HEX HEAD FULL THREAD ZINC	F81003-47	1	
10	COVER, DRIVE BELT GUARD PAINTED	093259-1	1	
11	GUARD WELDMENT, RESAW DRIVE BELT PAINTED	093262-1	1	
12	BOLT, M6X20-8.8 HEX HEAD FULL THREAD ZINC	F81001-2	10	
13	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	10	
14	WASHER, 6.4 FLAT ZINC	F81053-1	10	
	BELT, 2BXF71 MOTOR DRIVE	036163	1	
	BELT, 2BX70 11kW MOTOR DRIVE (E15)	P04857-2	1	

Pulley #500176 with pulley # 500177 and belt # 036163 are standard equipment and allow the user to reach the blade linear speed of 20.5 m/s. To reach the blade linear speed of 24.2 m/s, use pulley # 500569 with belt # P04857-2 instead of pulley #500177.
 Pulley #500570 with pulley #500569 allow the user to reach the blade linear speed of 30.3 m/s. Use drive belt #P04857-2.

#### 7.21 Feed Chain Drive & Tensioner



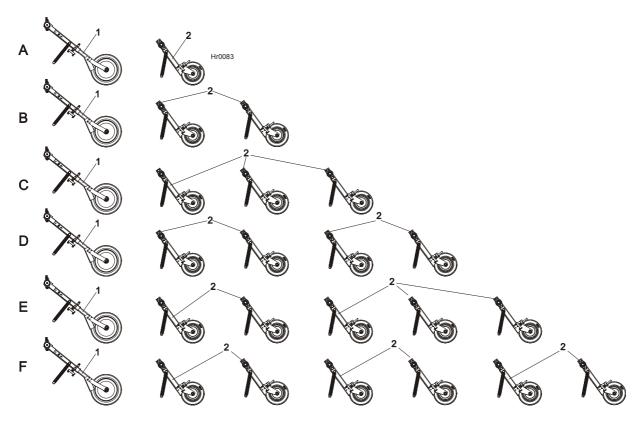
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	DRIVE ASSEMBLY, HR FEED CHAIN	099377	1
	DRIVE ASSEMBLY, HR PLATE LINK CHAIN	099069	1
1	MOTOREDUCER, MR-80/42/1.1-1400/V6	099070	1
	MOTOR, 1.1kW 1400 r.p.m.	086530	1
	REDUCER, MR-80/42	083879	1
2	SHAFT, HR CHAIN DRIVE ZINC-PLATED	099335-1	1
3	KEY, A10x8x45 PARALLEL	091312	2

7-27 HRdoc092116 REPLACEMENT PARTS

	VEV AAAVOVOO DADALLEI	000404	1 4 1	
4	KEY, A14X9X90 PARALLEL	099424	1	
5	BEARING, UCFL208 W/HOUSING	099423	2	
6	SPROCKET, KZN800/21-40 A=80,B=40	099079	1	
7	BOLT, M16x40-8.8 HEX HEAD FULL THREAD ZINC	F81006-13	4	
8	WASHER, 17 FLAT ZINC	F81058-1	4	
9	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	4	
10	BOLT, M10x25-8.8 HEX HEAD FULL THREAD ZINC	F81003-11	1	
11	WASHER, 10.2 SPLIT LOCK ZINC	F81055-2	2	
12	WASHER, LT15 DRIVE WHEEL ZINC-PLATED	086286-1	1	
13	PLATE, RA80 MOTOREDUCER SUPPORT	099425-1	1	
14	LINK, SBPL 10104 PIVOTAL	097700	1	
15	BOLT, M8x25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	8	
16	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	8	
17	WASHER, 8.4 FLAT ZINC	F81054-1	8	
18	BOLT, M10x35-8.8 HEX HEAD FULL THREAD ZINC	F81003-17	2	
19	WASHER, 10.5 FLAT ZINC	F81055-1	2	
20	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	1	
21	PAD, FEED TRACK (MEDIUM)	099376	2	
22	BOLT, M6x16 8.8 HEX HEAD FULL THREAD ZINC	F81001-15	12	
23	BOLT, M16x160-8.8 HEX HEAD ZINC	F81006-20	2	
24	WASHER, 17 FLAT ZINC	F81058-1	4	
25	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2	
26	CLAMP, RSGU 1.10/12 W1 METAL & RUBBER	086861	3	
27	WASHER, 5.3 FLAT ZINC	F81052-1	3	
28	SCREW, H M5x10 8.8 CROSS RECESSED PAN HEAD ZINC	F81000-13	3	
29	BOLT, 20/M16X90 12.9 ISO7379 SHOULDER	F81006-30 <sup>1</sup>	1	
30	PLATE, GUIDE ROLLER COVER ZINC-PLATED	099441-1 <sup>1</sup>	1	
31	WASHER, 21 FLAT ZINC	F81059-2 <sup>1</sup>	2	
32	ROLLER, R-80-80 (ZABI) GUIDE	099429 <sup>1</sup>	1	
33	MOUNT WELDMENT, HR CHAIN DRIVE	099378-1	1	
34	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	12	
35	BUSHING, 6.2X10X5 SPACER ZINC-PLATED	503674-1	8	
1	entities of rollers and their mounting hardware are: HP1/2 12 nee HP2/4 20			

 $<sup>^{1}</sup>$  The quantities of rollers and their mounting hardware are: HR1/2 - 12 pcs, HR3/4 - 20 pcs, HR5/6 - 28 pcs.

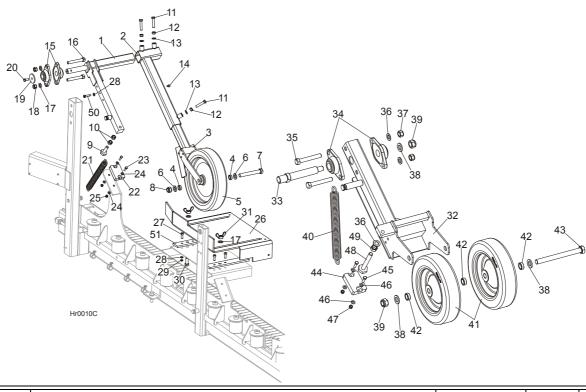
# 7.22 Hold-Down Roller Kit, HR500 1-6 - Standard



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
Α	ROLLER KIT, HR500-1 STANDARD HOLD-DOWN	506296	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	1
В	ROLLER KIT, HR500-2 STANDARD HOLD-DOWN	506297	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	2
С	ROLLER KIT, HR500-3 STANDARD HOLD-DOWN	506298	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	3
D	ROLLER KIT, HR500-4 STANDARD HOLD-DOWN	506299	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	4
E	ROLLER KIT, HR500-5 STANDARD HOLD-DOWN	506300	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	5
F	ROLLER KIT, HR500-6 STANDARD HOLD-DOWN	506301	1
1	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
2	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	6

7-29 HRdoc092116 REPLACEMENT PARTS

# 7.23 Hold-Down Rollers & Log Guide



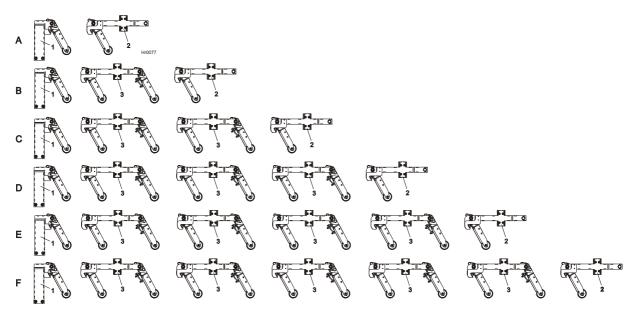
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	ROLLER, 400 COMPLETE HOLD-DOWN	099347	1
1	ARM, 400 HOLD-DOWN ROLLER PIVOT	099369-1	1
2	ARM, SHR-F HOLD-DOWN ROLLER OUTSIDE	094960-1	1
3	ARM, 400 HOLD-DOWN ROLLER INSIDE	099348-1	1
4	BUSHING, 21/30-12 ZINC-PLATED SPACER	516941-1	2
5	WHEEL,400 W/6304 BEARINGS	099334	1
6	WASHER, 21 FLAT ZINC	F81059-2	2
7	BOLT, M20x150 8.8 ISO 4017 ZINC-PLATED	F81007-3	1
8	NUT, M20-8-A HEX NYLON ZINC LOCK	F81037-2	1
	M16 BED RAIL ADJUSTMENT BOLT & 2 NUTS	093710	1
9	BOLT, M16 BED RAIL ADJUSTMENT	086809	1
10	NUT, M16-5-B HEX	F81036-5	2
11	BOLT, M12x60-8.8 HEX HEAD FULL THREAD ZINC	F81004-51	3
12	NUT, M12-8-B HEX ZINC	F81034-1	3
13	WASHER, 13 FLAT ZINC	F81056-1	3
14	SCREW, M8x10-8.8 HEX SOCKET HEAD CAP ZINC	F81002-32	1
15	BEARING, UCFL 206 CX BALL	090851	2
16	BOLT, M16x110-8.8 HEX HEAD ZINC	F81006-24	2
17	WASHER, 17 FLAT ZINC	F81058-1	4
18	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2
19	WASHER, IDLE BLADE WHEEL RETAINING ZINC-PLATED	086286-1	1
20	BOLT, M10x25-8.8 HEX HEAD FULL THREAD ZINC	F81003-11	1



21	SPRING, FI 4.5X FI 35X303	091863	1	$\exists$
22	BUMPER, GRENE 70 3201 0010. SHR RUBBER	094969	1	
23	BOLT, M8X30-5.8 HEX HEAD FULL THREAD ZINC	F81002-2	2	
24	WASHER, 8.4 FLAT ZINC	F81054-1	4	
25	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	_
26	GUIDE, LOG (FOR STANDARD ROLLERS)	099442-1	1	
	GUIDE, LOG (FOR OPTIONAL ROLLERS - See Section 7.24)	508129-1	1	
27	SCREW, M10X40 8.8 HEX SOCKET HEAD CAP ZINC	F81003-22	4	
28	WASHER, 10.5 FLAT ZINC	F81055-1	5	
29	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
30	BOLT, M16X40-8.8 HEX HEAD FULL THREAD ZINC	F81006-13	2	
31	NUT, M16 WING ZINC	F81036-3	2	
	ROLLER, 300 COMPLETE DUAL HOLD-DOWN	100344	1	
32	ARM, 300 HOLD-DOWN ROLLER	100345-1	1	
33	PIN, 300 ROLLER PIVOT ZINC-PLATED	100477-1	1	
34	BEARING, UCFL 206 CX BALL	090851	2	
35	BOLT, M16x110-8.8 HEX HEAD ZINC	F81006-24	2	
36	WASHER, 17 FLAT ZINC	F81058-1	3	
37	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2	
38	WASHER, 21 FLAT ZINC	F81059-2	3	
39	NUT, M20-8-A HEX NYLON ZINC LOCK	F81037-2	2	
40	SPRING, FI 4.5X FI 35X303	091863	1	
41	WHEEL, 300x70 METAL & RUBBER	100349	2	
42	BUSHING, 21X30X10 ZINC-PLATED SPACER	099351-1	3	
43	BOLT, M20X220-8.8 HEX HEAD ZINC	F81007-4	1	
44	BUMPER, GRENE 70 3201 0010. SHR RUBBER	094969	1	
45	BOLT, M8x30-5.8 HEX HEAD FULL THREAD ZINC	F81002-2	2	
46	WASHER, 8.4 FLAT ZINC	F81054-1	4	
47	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2	
48	BOLT, M16 HOLD-DOWN ROLLER ARM ZINC	100426-1	1	
49	NUT, M16-5.8 HEX ZINC	F81036-1	1	
50	BOLT, 12/M10X35 12.9 ISO7379 SHOULDER	F81003-48	1	
51	WASHER, LOG GUIDE SLIDE	099478	2	

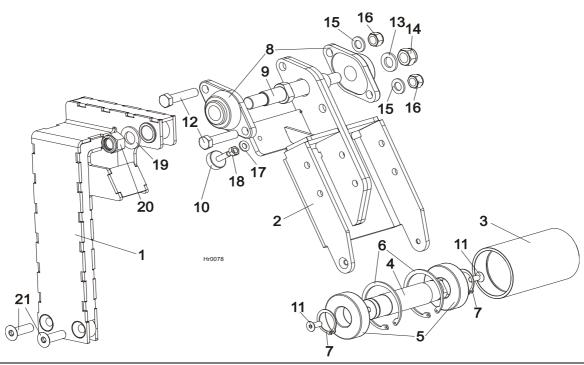
7-31 HRdoc092116 REPLACEMENT PARTS

# 7.24 101.6 Hold-Down Rollers for HR500 E11 / E15( 1-6 ) - OPTIONAL



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
Α	101.6 ROLLER KIT FOR HR500E11/E15-1	504954	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
В	101.6 ROLLER KIT FOR HR500E11/E15-2	504955	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
3	ROLLER KIT,101.6 COMPLETE HOLD-DOWN	504926	1
С	101.6 ROLLER KIT FOR HR500E11/E15-3	504956	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
3	ROLLER KIT,101.6 COMPLETE HOLD-DOWN	504926	2
D	101.6 ROLLER KIT FOR HR500E11/E15-4	504957	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
3	ROLLER KIT,101.6 COMPLETE HOLD-DOWN	504926	3
E	101.6 ROLLER KIT FOR HR500E11/E15-5	504958	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
3	ROLLER KIT,101.6 COMPLETE HOLD-DOWN	504926	4
F	101.6 ROLLER KIT FOR HR500E11/E15-6	504959	1
1	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1
2	ROLLER, 101.6 COMPLETE REAR HOLD-DOWN	504960	1
3	ROLLER KIT,101.6 COMPLETE HOLD-DOWN	504926	5

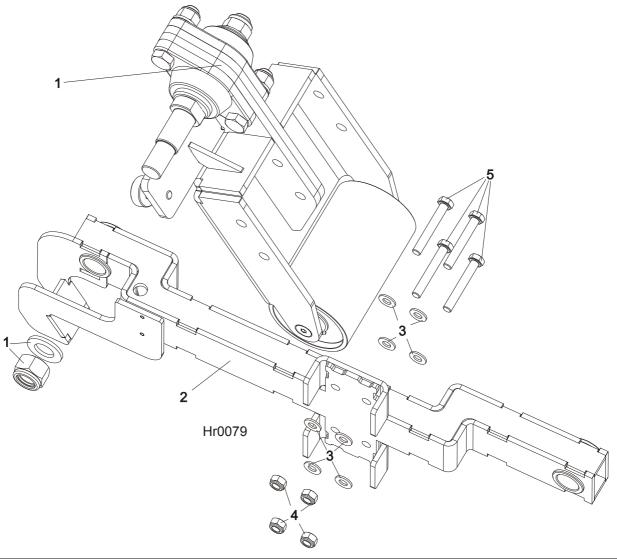
#### 7.25 101.6 Front Hold-Down Roller - OPTIONAL



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	ROLLER, 101.6 COMPLETE FRONT HOLD-DOWN	504951	1	
1	MOUNT WLDMT, 101.6 FRONT HOLD-DOWN ROLLER	504944-1	1	
	ROLLER, 101.6 HOLD-DOWN W/ MOUNTING BRACKET - COMPLETE	504933	1	
2	BRACKET, 101.6 HOLD-DOWN ROLLER MOUNTING	504927-1	1	
	ROLLER, 101.6 X 170 COMPLETE HOLD-DOWN	504930	1	
3	TUBE, HOLD-DOWN ROLLER ZINC-PLATED	504931-1	1	
4	SHAFT, HOLD-DOWN ROLLER ZINC-PLATED	504932-1	1	
5	BEARING, 6308 2RS CX	504268	2	
6	RING, W90 INSIDE RETAINING	F81090-29	2	
7	RING, Z40 OUTSIDE RETAINING	F81090-33	2	
8	BEARING, UCFL 206 CX-WM1000 W/HOUSING	090851	2	
9	SHAFT, 101.6 ROLLER MOUNTING BRACKET ZINC-PL	504938-1	1	
10	FOOT, M10 ADJUSTABLE BASE	092839	1	
11	BOLT, M10x25 -10.9- Fe/Zn5 DIN 7991	F81003-82	2	
12	BOLT, M16x70 -8.8 HEX HEAD ZINC	F81006-16	2	
13	WASHER, 21 FLAT ZINC	F81059-2	1	
14	NUT, M20-8-A HEX NYLON ZINC LOCK	F81037-2	1	
15	WASHER, 17 FLAT ZINC	F81058-1	2	
16	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2	
17	WASHER, 10.5 FLAT ZINC	F81055-1	1	
18	NUT, M10-8-B HEX ZINC	F81033-3	1	
19	WASHER, 25 FLAT ZINC	F81061-3	1	
20	NUT, M24-8-A HEX NYLON ZINC LOCK	F81039-8	1	
21	BOLT, M16x50-10.9 DIN7991,BN1422 ZINC-PLATED	F81006-42	2	

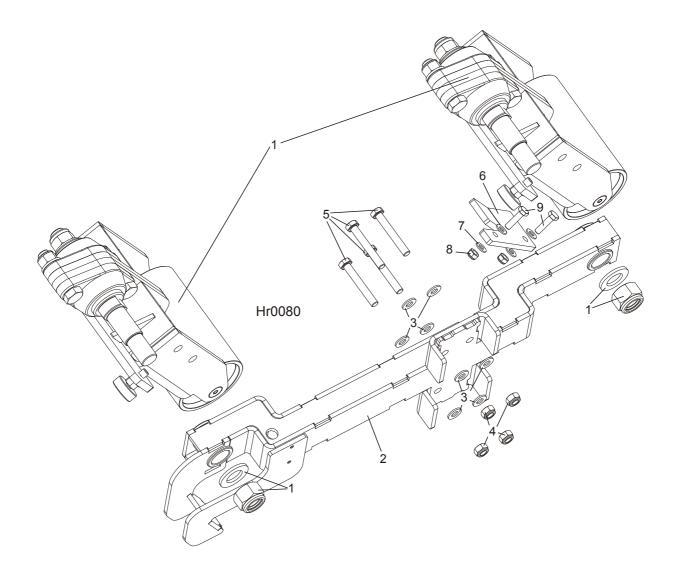
7-33 HRdoc092116 REPLACEMENT PARTS

# 7.26 101.6 Rear Hold-Down Roller - OPTIONAL



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	ROLLER, 101.6 REAR HOLD-DOWN - COMPLETE	504960	1	
1	ROLLER, 101.6 HOLD-DOWN W/ MOUNTING BRACKET - COMPLETE See Section 7.25	504933	1	
2	MOUNT WELDMENT, 101.6 HOLD-DOWN ROLLER	504934-1	1	
3	WASHER, 10.5 FLAT ZINC	F81055-1	8	
4	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
5	BOLT, M10x70-8.8 HEX HEAD FULL THREAD ZINC	F81003-20	4	

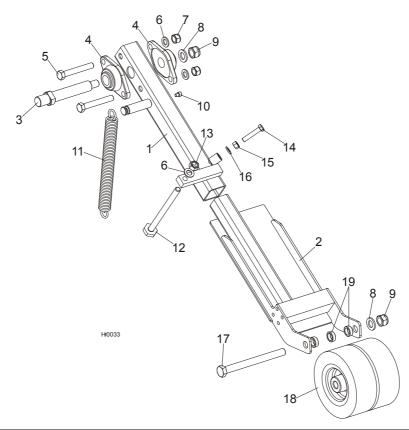
#### 7.27 101.6 Hold-Down Roller Kit - OPTIONAL



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
	ROLLER KIT, 101.6 COMPLETE	504926	1
1	ROLLER, 101.6 HOLD-DOWN W/ MOUNTING BRACKET - COMPLETE See Section 7.25	504933	2
2	MOUNT WELDMENT, 101.6 HOLD-DOWN ROLLER	504934-1	1
3	WASHER, 10.5 FLAT ZINC	F81055-1	8
4	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4
5	BOLT, M10x70-8.8 HEX HEAD FULL THREAD ZINC	F81003-20	4
6	PLATE, FOOT ADDITIONAL STOP	504942-1	1
7	WASHER, 8.4 FLAT ZINC	F81054-1	4
8	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	2
9	BOLT, M8x30-8.8-B HEX HEAD FULL THREAD ZINC	F81002-7	2

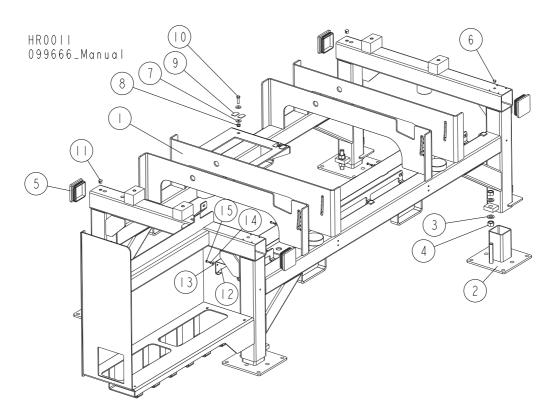
7-35 HRdoc092116 REPLACEMENT PARTS

# 7.28 Adjustable Hold-Down Roller (Option)



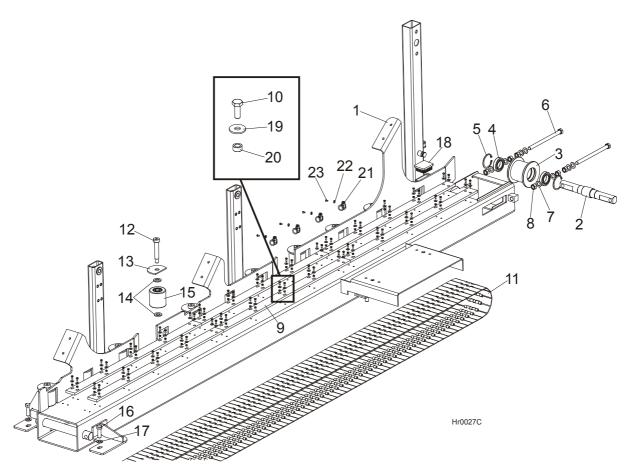
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	ROLLER, HR ADJUSTABLE HOLD-DOWN	100758	1
1	ARM, 200 ADJUSTABLE HOLD-DOWN ROLLER	100587-1	1
2	ARM, 200 HOLD-DOWN ROLLER OUTRIGGER	100592-1	1
3	PIN, 300 ROLLER PIVOT ZINC-PLATED	100477-1	1
4	BEARING, UCFL 206 CX BALL	090851	2
5	BOLT, M16x110-8.8 HEX HEAD ZINC	F81006-24	2
6	WASHER,17 FLAT ZINC	F81058-1	3
7	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2
8	WASHER, 21 FLAT ZINC	F81059-2	2
9	NUT, M20-8-A HEX NYLON ZINC LOCK	F81037-2	2
10	SCREW, M8x10-8.8 HEX SOCKET HEAD CAP ZINC	F81002-32	1
11	SPRING, FI 4.5X FI 35X303	091863	1
12	BOLT, M16 HOLD-DOWN ROLLER ARM ZINC	100591-1	1
13	NUT, M16-5.8 HEX ZINC	F81036-1	1
14	BOLT, M12x60-8.8 HEX HEAD FULL THREAD ZINC	F81004-51	1
15	NUT, M12-8-B HEX ZINC	F81034-1	1
16	WASHER, 13 FLAT ZINC	F81056-1	1
17	BOLT, M20X220-8.8 HEX HEAD ZINC	F81007-4	1
18	WHEEL, D=200mm 60NN METAL & RUBBER	099160	2
19	BUSHING, 21X30X10 ZINC-PLATED SPACER	099351-1	3

### 7.29 Main Module Base



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
	BASE, HR2 MAIN MODULE - COMPLETE	099023	1
1	FRAME, 2HR MAIN MODULE BASE	099024-1	1
2	FOOT, LEG ADJUSTABLE	099547-1	4
3	WASHER, 21 FLAT ZINC	F81059-2	8
4	NUT, M20-8 HEX ZINC	F81037-1	8
5	CAP, 100x100 #199200 SQUARE	090694	4
6	CAP, DP 812 HEJMAN 12.7 DIA. HOLE	086773	2
7	WASHER, 10.5 SPECIAL FLAT ZINC	F81055-6	8
8	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4
9	WASHER, CORK	502881	8
10	ŚRUBA M10X35 8.8 FE/ZN5 PN-85/M-82105	F81003-17	4
11	PLUG, 1086 DIA. 15.9x6.4 DOMED BLANKING (MOSS466856)	511829	6
	COVER, CABLE/HOSE - COMPLETE	515182	1
12	COVER, CABLE/HOSE	515183-1	1
13	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	4
14	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	4
15	BOLT, M6X16-8.8 HEX HEAD FULL THREAD ZINC	F81001-15	4

### 7.30 Main Module Feed Track

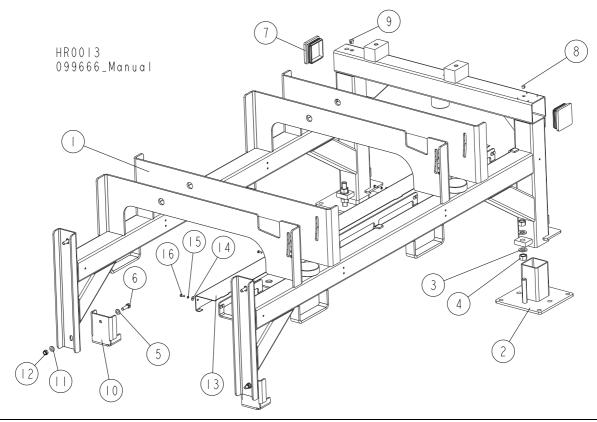


REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	MAIN MODULE FEED TRACK - COMPLETE	099039	1
1	TRACK, HR2 MAIN MODULE FEED	099040-1	1
	PULLEY, CHAIN TENSION - COMPLETE	099340	1
2	SHAFT, CHAIN TENSION PULLEY ZINC-PLATED	099337-1	1
3	PULLEY, CHAIN TENSION ZINC-PLATED	099336-1	1
4	BEARING, 6008 2RS FLT	086259	2
5	RING, W68 INSIDE RETAINING	F81090-16	2
6	BOLT, M16X240-8.8-A2 FULL THREAD	F81006-29	2
7	WASHER, 17 FLAT ZINC	F81058-1	8
8	NUT, M16-5.8 HEX ZINC	F81036-1	6
9	PAD, RESAW FEED TRACK	092080	6
10	BOLT, M6x16 8.8 HEX HEAD FULL THREAD ZINC	F81001-15	60
11	CHAIN, ACCATE S802K750 204-LINK	099080	1
	CHAIN, ACCATE S802K750 116-LINK	099344 <sup>1</sup>	1/2
12	BOLT, 20/M16X90 12.9 ISO7379 SHOULDER	F81006-30	11
13	COVER, SIDE ROLLER ZINC-PLATED	099441-1	11
14	WASHER, 21 FLAT ZINC	F81059-2	22
15	ROLLER, R-80-80 (ZABI) SIDE	099429	11

16	BOLT, M16x50-8.8 HEX HEAD FULL THREAD ZINC	F81006-7	4	
17	WASHER, 17 FLAT ZINC	F81058-1	4	
18	CAP, HR FRAME	089644	1	
19	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	60	
20	BUSHING, 6.2X10X5 ZINC-PLATED SPACER	503674-1	48	
21	CLAMP, RSGU 1.20/20 W1 METAL & RUBBER	F81087-2	7	
22	WASHER, 5.5 SPECIAL FLAT ZINC	F81052-3	7	
23	SCREW, H M5x10 8.8 CROSS RECESSED PAN HEAD ZINC	F81000-13	7	

<sup>&</sup>lt;sup>1</sup> Used only on HR3/4 (1 pcs) and on HR5/6 (2 pcs) as the 099080 chain extension.

#### 7.31 Additional Module Base

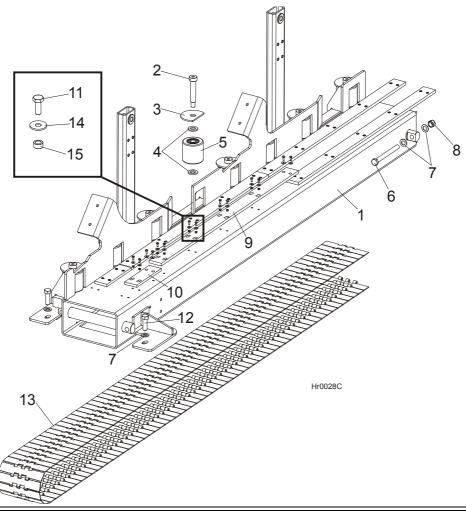


REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
	COMPLETE ADDITIONAL MODULE BASE	099031 <sup>1</sup>	1/2
1	FRAME, 2HR ADDITIONAL MODULE BASE	099032-1	1
2	FOOT, ADJUSTABLE LEG	099547-1	2
3	WASHER, 21 FLAT ZINC	F81059-2	4
4	NUT, M20-8 HEX ZINC	F81037-1	4
5	WASHER, 13 FLAT ZINC	F81056-1	4
6	BOLT, M12X40-8.8 HEX HEAD FULL THREAD ZINC	F81004-4	4
7	CAP, 100x100 #199200 SQUARE	090694	2
8	CAP, DP 500 HEJMAN 12.7 DIA. HOLE (#2643)	086773	1
9	PLUG, 1086 DIA. 15.9x6.4 DOMED BLANKING (MOSS466856)	511829	3
	BRACKET, ADDITIONAL MODULE TRANSPORT - COMPLETE	514728	2

REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
10	BRACKET, TRANSPORT	514726-1	1
11	WASHER, 13 FLAT ZINC	F81056-1	1
12	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	1
	COVER, CABLE/HOSE - COMPLETE	515182	1
13	COVER, CABLE/HOSE	515183-1	1
14	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	4
15	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	4
16	BOLT, M6X16-8.8 HEX HEAD FULL THREAD ZINC	F81001-15	4

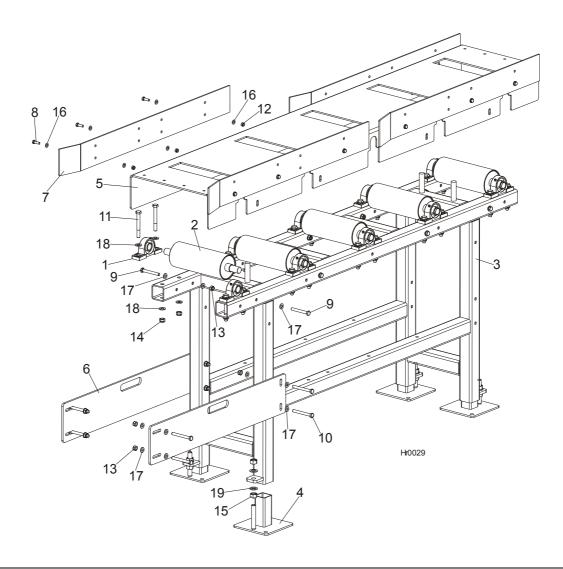
<sup>&</sup>lt;sup>1</sup> Used on HR3/4 - 1 piece and on HR5/6 - 2 pcs

### 7.32 Additional Module Feed Track



REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	ADDITIONAL MODULE FEED TRACK - COMPLETE	099440	1
1	TRACK, HR2 FEED	099372-1	1
2	BOLT, 20/M16X90 12.9 ISO7379 SHOULDER	F81006-30	8
3	COVER, SIDE ROLLER ZINC-PLATED	099441-1	8
4	WASHER, 21 FLAT ZINC	F81059-2	16
5	ROLLER, R-80-80 (ZABI) SIDE	099429	8
6	BOLT, M16x160-8.8 HEX HEAD ZINC	F81006-20	2
7	WASHER, 17 FLAT ZINC	F81058-1	6
8	NUT, M16-8 HEX NYLON ZINC LOCK	F81036-2	2
9	PAD, RESAW FEED TRACK	092080	4
10	PAD, FEED TRACK SHORT	099430	2
11	BOLT, M6x16 8.8 HEX HEAD FULL THREAD ZINC	F81001-15	48
12	BOLT, M16x50-8.8 HEX HEAD FULL THREAD ZINC	F81006-7	2
13	CHAIN, ACCATE 116-LINK	099344	1
14	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	48
15	BUSHING, 6.2X10X5 ZINC-PLATED SPACER	503674-1	36

# 7.33 Idle Roller Table, SLPIRT



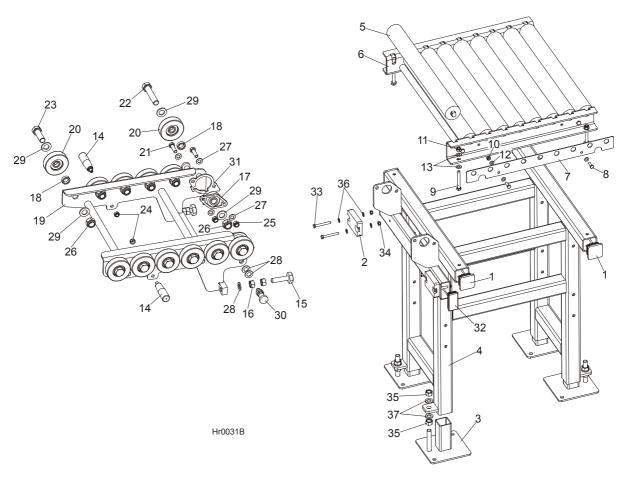
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	HR IDLE ROLLER TABLE	SLPIRT	1	
	IDLE RETURN TABLE - COMPLETE	099659	1	
1	BEARING, UCP 205 CX W/HOUSING	088468	10	
2	ROLLER, SVS FEED	098140-1	5	
3	FRAME, SVS INFEED & OUTFEED TABLE	099168-1	1	
4	FOOT ASSEMBLY, TABLE LEG	099281-1	4	
5	PLATE, RETURN TABLE TOP	099686-1	1	
6	PLATE, RETURN TABLE CONNECTION	099687-1	2	
7	PLATE, GUIDE	099688-1	4	
8	BOLT, M8x25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	12	
9	BOLT, M10x80-8.8 HEX HEAD ZINC	F81003-50	9	
10	BOLT, M10x90 -8.8-B HEX HEAD ZINC	F81003-66	8	
11	BOLT, M12x100-8.8 HEX HEAD ZINC	F81004-3	20	



12	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	12	
13	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	17	
14	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	20	
15	NUT, M16-5.8 HEX ZINC	F81036-1	8	
16	WASHER, 8.4 FLAT ZINC	F81054-1	23	
17	WASHER, 10.5 FLAT ZINC	F81055-1	34	
18	WASHER, 13 FLAT ZINC	F81056-1	40	
19	WASHER, 17 FLAT ZINC	F81058-1	8	

7-43 HRdoc092116 REPLACEMENT PARTS

# 7.34 Cross Roller Table, SLPCRT



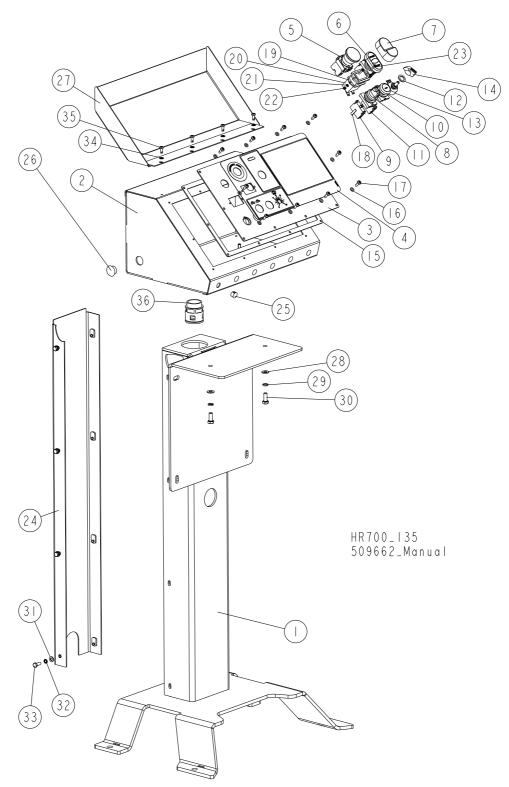
REF.	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY
	HR CROSS ROLLER TABLE	SLPCRT	1
	COMPLETE CROSS RETURN TABLE	099648	1
1	CAP, 1540 DIA. OUTRIGGER LEG	089710	4
2	BUMPER, GRENE 70 3201 0010. SHR RUBBER	094969	2
3	FOOT ASSEMBLY, TABLE LEG	099281-1	4
4	FRAME WELDMENT, CROSS RETURN TABLE	099652-1	1
	TOP, 63.5X600 CROSS RETURN TABLE - COMPLETE	099656	1
5	ROLLER, 63.5/20X600/608/626 s=14 (EE15)	089044-1	9
6	BRACKET, 63.5X600 ROLLER MOUNTING	099649-1	1
7	PLATE, 63.5/20X600 ROLLER CLAMP	099650-1	2
8	BOLT, M8x25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	4
9	BOLT, M10x80 -8.8 HEX HEAD ZINC	F81003-50	4
10	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4
11	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4
12	WASHER, 8.4 FLAT ZINC	F81054-1	8
13	WASHER, 10.5 FLAT ZINC	F81055-1	8
	ARM, OPENED W/RP-90 ROLLERS - COMPLETE	099679	1



14	VALOD DI ACTIC CDANIZ HANDI E	086338	2	$\overline{}$
14	KNOB, PLASTIC CRANK HANDLE			_
	M16 BOLTS +2 NUTS	093710	2	
15	NUT, M16-5-B HEX	F81036-5	1	
16	BOLT, M16 BED RAIL ADJUSTMENT	086809	2	
17	BEARING, UCFL204 (COMPLEX) W/HOUSING	500060	2	
18	BUSHING, 21X30X10 ZINC-PLATED SPACER	099351-1	12	
19	ARM WELDMENT, OPENED	099680-1	1	
20	ROLLER, RP-90. 6304 POLYURETHANE	099689	12	
21	BOLT, M12x40-8.8 HEX HEAD ZINC	F81004-1	4	
22	BOLT, M20X100-8.8 HEX HEAD ZINC	F81007-6	2	
23	BOLT, M20X60-8.8 HEX HEAD ZINC	F81007-7	10	
24	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	2	
25	NUT, M12-8 HEX NYLON ZINC LOCK	F81034-2	4	
26	NUT, M20-8-A HEX NYLON ZINC LOCK	F81037-2	12	
27	WASHER, 13 FLAT ZINC	F81056-1	8	
28	WASHER, 17 FLAT ZINC	F81058-1	8	
29	WASHER, 21 FLAT ZINC	F81059-2	24	
30	PIN, 45308DNW DETENT	089939	2	
31	PLATE, OPENED ARM LOCK	503336-1	2	
32	CAP, 80x40 TUBE	099692	2	
33	BOLT, M8x65 8.8 HEX HEAD FULL THREAD ZINC	F81002-9	4	
34	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
35	NUT, M16-5.8 HEX ZINC	F81036-1	8	
36	WASHER, 8.4 FLAT ZINC	F81054-1	8	
37	WASHER, 17 FLAT ZINC	F81058-1	8	

7-45 HRdoc092116 REPLACEMENT PARTS

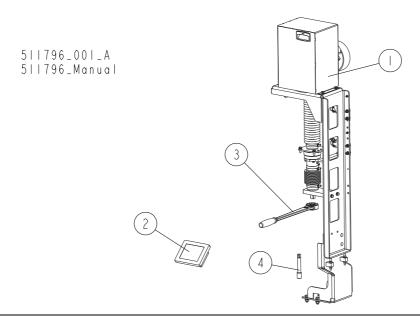
### 7.35 Control Box



REF.	<b>DESCRIPTION</b> (◆ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	BOX, HR500/700 CONTROL - COMPLETE	515180	1	
1	PEDESTAL, CONTROL BOX	505555-1	1	

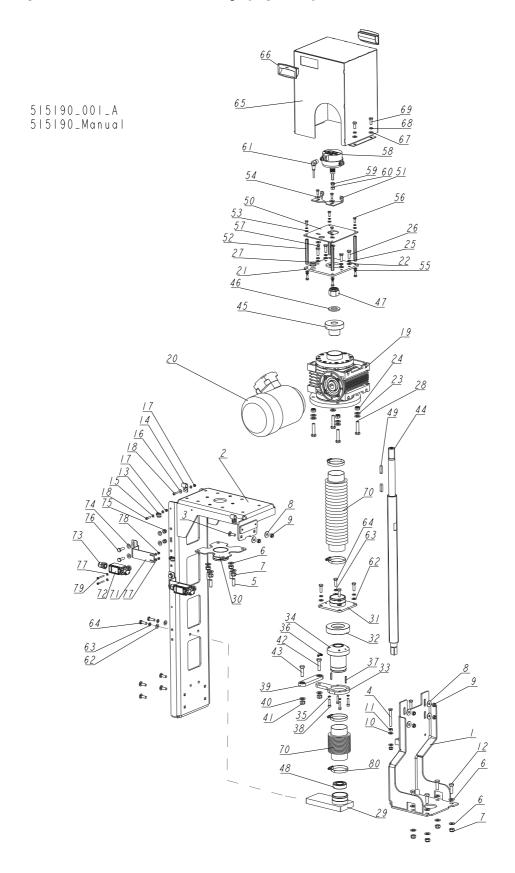
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
2	BOX WELDMENT, TVS CONTROL	510061-1	1
	PANEL ASSEMBLY, HR500/700 CONTROL BOX FRONT	511804	1
3	PANEL, HR500/700 CONTROL BOX FRONT	511803-1	1
4	DECAL, HR500/700 CONTROL BOX	510765	1
5	BUTTON, XB4 BS542 EMERGENCY STOP	086556	1
6	SWITCH, 24V ILLUMINATED MOELLER START/STOP	090452	1
7	DIAPHRAGM, M22-T-DD MOELLER ACTUATOR	090462	1
8	SWITCH, MOELLER 3-POSITION GREEN	091359	1
9	ELEMENT, M22 K10 MOELLER CONTACT	091362	1
10	SWITCH, M22 RED PUSHBUTTON	090926	1
11	ELEMENT, M22 K10 MOELLER CONTACT	091362	1
12	WASHER, 1/2X3/4X1/16 NYLON	P05251-1	1
13	POTENTIOMETER, 5K 53C35K	504389	1
14	KNOB, SPEED CONTROL	P06257	1
15	GASKET, CONTROL BOX	097132	1
16	WASHER, 5.3 FLAT ZINC	F81052-1	10
17	BOLT, #10-24X1/2 PAN HEAD, TYPE 23	F05015-17	10
18	ADAPTOR, M22-XC-Y CODING	092687	2
19	GASKET, HOUR METER	093346	1
20	METER, (HOBBS-HONEYWELL) HOUR	093166	1
21	WASHER, 3.2 FLAT ZINC	F81050-2	2
22	NUT, M3-6 HEX NYLON ZINC LOCK	F81028-2	2
23	SCREW, M3x16 5.8-B CROSS RECESSED PAN HEAD ZINC	F81028-3	2
24	PLATE, WM1000 REAR CONTROL BOX PEDESTAL	504499-1	1
25	CAP, HEYMAN DP-812 12.7 HOLE	086773	6
26	CAP, SR1086 22.2 HOLE	093544	2
27	COVER, CONTROL BOX - COMPLETE	097135-1	1
28	WASHER, 8.4 FLAT ZINC	F81054-1	2
29	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	2
30	BOLT, M8X20 8.8 HEX HEAD FULL THREAD ZINC	F81002-4	2
31	WASHER, 6.4 FLAT ZINC	F81053-1	8
32	WASHER, Z6.1 SPLIT LOCK ZINC	F81053-3	8
33	BOLT, M6X16-8.8 HEX HEAD FULL THREAD ZINC	F81001-15	8
34	WASHER, 5.3 FLAT ZINC	F81052-1	4
35	BOLT, #10-24X1/2 PAN HEAD, TYPE 23	F05015-17	4
36	GLAND, KLICK-GP29 RILL 29 CONDUIT	086576	1

# 7.36 Multisetwork (Option)



REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART#		QTY				
	MULTISETWORK, HR500-1	511796	х	-	-	-	-	-
	MULTISETWORK, HR500-2	511797	-	х	-	-	-	-
	MULTISETWORK, HR500-3	511798	-	-	Х	-	-	-
	MULTISETWORK, HR500-4	511799	-	-	-	Х	-	-
	MULTISETWORK, HR500-5	511800	-	-	-	-	Х	-
	MULTISETWORK, HR500-6	511801	-	-	-	-	-	Х
1	DRIVE ASSEMBLY, HR500 UP/DOWN - COMPLETE <u>See</u> <u>Section 7.37</u>	515190	1	2	3	4	5	6
2	SCREEN, HMISTU855 TOUCH	508978	1	1	1	1	1	1
3	WRENCH, 3/4" RATCHET	507312	1	1	1	1	1	1
4	EXTENSION 1/2"x130	518549	1	1	1	1	1	1

# 7.37 Up/Down Drive Assembly (Option)

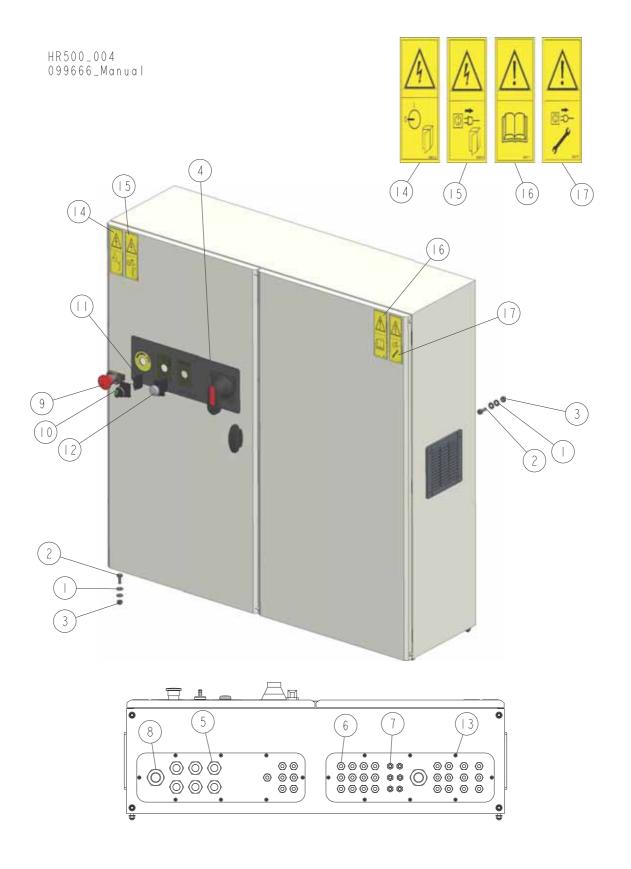


REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	DRIVE ASSEMBLY, HR500 UP/DOWN	515190	1	
	BRACKET, HR500 UP/DOWN DRIVE MOUNT - COMPLETE	515189	1	
1	BRACKET, HR500 UP/DOWN DRIVE MOUNT - LOWER	515187-1	1	
2	BRACKET, SHS/HR700 UP/DOWN DRIVE MOUNT - UPPER	515155-1	1	
3	BOLT, M8X25-8.8 CARRIAGE HEAD ZINC	F81002-59	6	
4	BOLT, M8X65 8.8 HEX HEAD FULL THREAD ZINC	F81002-9	2	
5	SCREW, M10X30-33H-GEOMET HEX SOCKET SET W/FLAT POINT	F81003-35	4	
6	WASHER, 10.5 FLAT ZINC	F81055-1	12	
7	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	8	
8	WASHER, ISO 7093-1-8-200 HV-A2E.	F81054-11	6	
9	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	8	
10	WASHER, 8.4 FLAT ZINC	F81054-1	4	
11	NUT, M8-8-B HEX ZINC	F81032-1	2	
12	BOLT, M10X30 5.8 HEX HEAD FULL THREAD ZINC	F81003-2	4	
13	CLAMP, RSGU 1.10/12W1 METAL & RUBBER	086861	2	
14	CLAMP, 1/2" EMT COATED	P07584	2	
15	WASHER, 5.3 FLAT ZINC	F81052-1	7	
16	WASHER, 5.5 SPECIAL FLAT ZINC	F81052-3	2	
17	NUT, M5-8-FE/ZN5 DIN985	F81030-2	4	
18	SCREW, M5X20 8.8 HEX SOCKET HEAD CAP ZINC	F81000-72	4	
	REDUCER, MRP-63 SHS/HR700 UP/DOWN DRIVE - COMPLETE	515157	1	
	REDUCER, MRP-63/16[0.75-1400-120/19]-WMI-[S3=60%]-B/SO/K2/B6	514932	1	
19	REDUCER, MRP-63/16 [120/19]SO/K2/B6	514933	1	
20	MOTOR, SKH 80-4B2/3045 (N=0.75 kW, N=1380 r.p.m.) INDUCTION	514934	1	
21	PLATE, ENCODER MOUNT	515149-1	1	
22	WASHER, 8.4 FLAT ZINC	F81054-1	4	
23	WASHER,10.5 FLAT ZINC	F81055-1	8	
24	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	4	
25	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	4	
26	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	4	
27	GROMMET, 20/13 RUBBER	086188	1	
28	BOLT, M10X45 HEX HEAD FULL THREAD ZINC	F81003-3	4	
29	BRACKET, UP/DOWN SCREW BELLOWS - LOWER	514935-1	1	
30	BRACKET, UP/DOWN SCREW BELLOWS - UPPER	514915-1	1	
31	BRACKET, UP/DOWN SCREW BELLOWS - MIDDLE	514919-1	1	
32	WASHER, 90X50X20 SPHERICAL ZINC-PLATED SEAT	514898-1	1	
	NUT, TR36X3 UP/DOWN SCREW - COMPLETE	515138	1	
33	PLATE, TR36X3 NUT ZINC-PLATED SEAT	515143-1	1	
34	NUT, TR36X3 UP/DOWN SCREW	514899	1	
35	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	4	
36	FITTING, M6 PN/M-86003 GREASE	094213	1	
37	PIN, 5X26 ROLL ZINC	F81044-2	2	
38	SCREW, M6X25-8.8 HEX SOCKET HEAD CAP ZINC	F81001-41	4	
39	LINK, SBPL 10104 PIVOTAL (COMPLEX)	097700	1	
40	WASHER, 10.5 FLAT ZINC	F81055-1	2	



REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
41	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	2
42	BOLT, M10X40-8.8 HEX HEAD FULL THREAD ZINC	F81003-16	1
43	BOLT, M10X35 8.8 HEX HEAD FULL THREAD ZINC	F81003-17	1
44	BALLSCREW, TR36X3 HR500 ZINC-PLATED	515234-1	1
45	CAP, MRP-63 MOTOREDUCER ZINC-PLATED	515144-1	1
46	WASHER, 25 FLAT ZINC	F81061-3	1
47	NUT, M24X2 PN-EN ISO 7040 NYLON	F81039-10	1
48	BEARING, 6205 2RSR P6 (FAG,NSK,SKF) BALL	087353	1
49	KEY, A8X7X32 PARALLEL	088564	2
	ENCODER ASSEMBLY, SHS/HR700	515147	1
50	PLATE, ENCODER MOUNT	515148-1	1
51	BRACKET, ENCODER	507372-1	1
52	SPACER, M6X100- BN3319 (BOSSARD)	F81031-10	4
53	WASHER, 6.4 FLAT ZINC	F81053-1	8
54	WASHER, 6.5 SPECIAL FLAT ZINC	F81053-11	4
55	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	8
56	BOLT, M6X16-8.8 HEX HEAD FULL THREAD ZINC	F81001-15	10
57	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2
58	ENCODER, 48 IMP./TURN 12V DC INCREMENTAL	510285	1
59	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	1
60	NUT, M8-8-B HEX ZINC	F81032-1	1
61	CABLE, 5 M LIMIT SWITCH	087652	1
62	WASHER, 8.4 FLAT ZINC	F81054-1	6
63	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	6
64	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	6
	GUARD, SHS/HR700 UP/DOWN DRIVE - COMPLETE	515151	1
65	GUARD, SHS/HR700 UP/DOWN DRIVE	515152-1	1
66	HANDLE, EPR.90-PF-C1(261051-C1) SNAP-IN FLUSH PULL	100012	2
67	WASHER, 8.4 FLAT ZINC	F81054-1	4
68	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	4
69	BOLT, M8X20 8.8 HEX HEAD FULL THREAD ZINC	F81002-4	4
70	BELLOWS, 60/520 PROTECTIVE	514918	2
	SWITCH ASSEMBLY, LIMIT	515141	2
71	BRACKET, LIMIT SWITCH MOUNT	515142-1	1
72	SWITCH, GLCB01A1B LIMIT	100931	1
73	GLAND, DP9/H CABLE	F81096-2	1
74	WASHER, 8.4 FLAT ZINC	F81054-1	4
75	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	2
76	BOLT, M8X25-8.8-B HEX HEAD FULL THREAD ZINC	F81002-5	2
77	WASHER, 4.3 FLAT ZINC	F81051-2	4
78	NUT, M4-8 HEX NYLON ZINC LOCK	F81029-1	2
79	SCREW, M4X35 8.8 HEX SOCKET HEAD CAP ZINC	F81011-34	2
80	CLAMP, 50-70 DIN 3017 WORM	F81095-6	4

#### 7.38 Electric Box

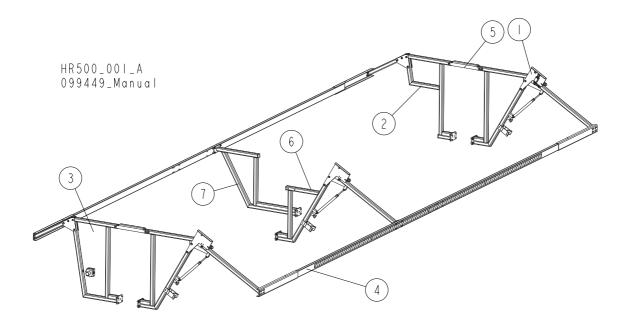




REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
1	WASHER, 8.4 FLAT ZINC	F81054-1	12
2	BOLT, M8X20 8.8 HEX HEAD FULL THREAD ZINC	F81002-4	6
3	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	6
	BOX, 1000X1000X300 HR500-6 ELECTRIC - COMPLETE	515246	1
4	DECAL, 1000X1000X300 HR500/700 ELECTRIC BOX	515227	1
5	GLAND, DP21/H CABLE	F81096-3	6
6	GLAND, DP9/H CABLE	F81096-2	31
7	GLAND, DP 7/H CABLE	F81096-11	6
8	GLAND, PG29 CABLE	F81096-1	2
9	BUTTON, XB4 BS542 EMERGENCY STOP	086556	1
10	SWITCH, MOELLER 3-POSITION GREEN	091359	1
11	ELEMENT, M22 K10 MOELLER CONTACT	091362	1
12	LIGHT, 1SFA619402L5415 WHITE CONTROL	509129	1
13	BOLT, #10-24X1/2 PH	F05015-17	16
14	HAZARDOUS VOLTAGE INSIDE THE ELECTRIC BOX (PICTOGRAM)	096316	1
15	DECAL, REMOVE THE PLUG BEFORE OPENING THE ELECTRIC BOX (PICTOGRAM)	096319	1
16	DECAL, READ THE OPERATOR'S MANUAL (PICTOGRAM)	096317	1
17	DECAL, DISCONNECT POWER SUPPLY BEFORE SERVICING (PICTOGRAM)	098177	1

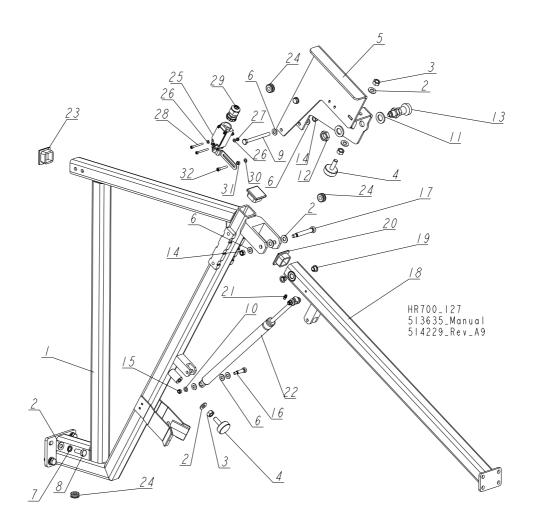
# **SECTION 8 SIDE FENCE (CE VERSION ONLY)**

#### 8.1 Side Fence



REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY
	FENCE, HR500-1/HR500-2 SIDE - COMPLETE	099447	1/0/0
	FENCE, HR500-3/HR500-4 SIDE - COMPLETE	099448	0/1/0
	FENCE, HR500-5/HR500-6 SIDE - COMPLETE	099449	0/0/1
1	BRACKET, MOVING SIDE FENCE SUPPORT - COMPLETE See Section 8.2	514229	2
2	BRACKET, FIXED SIDE FENCE SUPPORT - COMPLETE See Section 8.3	515211	1
3	BRACKET, FIXED SIDE FENCE SUPPORT - COMPLETE See Section 8.5	514365	1
4	BARRIER, HR700-1/HR700-2 SIDE FENCE - COMPLETE See Section 8.6	514367	2/0/0
	BARRIER, HR700-3/HR700-4 SIDE FENCE - COMPLETE See Section 8.6	514366	0/2/0
	BARRIER, HR700-5/HR700-6 SIDE FENCE - COMPLETE See Section 8.6	514215	0/0/2
5	BRACKET, CONNECTING - COMPLETE See Section 8.3	099443	1
6	BRACKET, MOVING SIDE FENCE MIDDLE SUPPORT - COMPLETE See Section 8.5	515197	0/0/1
7	BRACKET, FIXED SIDE FENCE MIDDLE SUPPORT - COMPLETE See Section 8.7	515229	0/0/1

# 8.2 Moving Side Fence Support Bracket



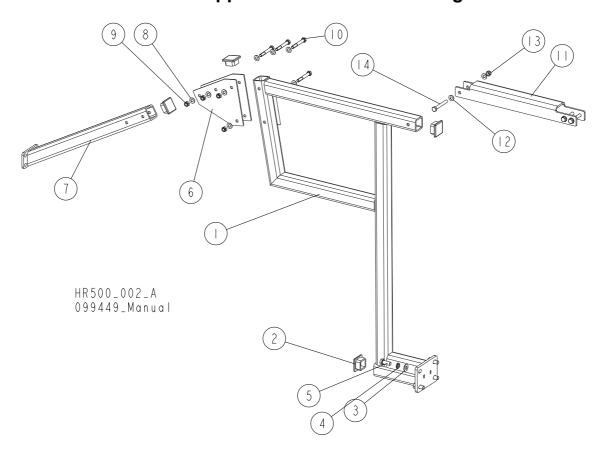
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BRACKET, MOVING SIDE FENCE SUPPORT - COMPLETE	514229	1	
1	BRACKET, MOVING SIDE FENCE SUPPORT	099450-1	1	
2	WASHER, 10.5 FLAT ZINC	F81055-1	10	
3	NUT, M10-8-B HEX ZINC	F81033-3	3	
4	FOOT, M10	092839	2	
5	BRACKET, LIMIT SWITCH MOUNT	099470-1	1	
6	WASHER, 8.4 FLAT ZINC	F81054-1	11	
7	WASHER, Z10.2 SPLIT LOCK ZINC	F81055-2	4	
8	BOLT, M10X25 8.8 HEX HEAD FULL THREAD ZINC	F81003-11	4	
9	BOLT, M8X90-8.8 HEX HEAD FULL THREAD ZINC	F81002-16	2	
10	WASHER, 6.4 FLAT ZINC	F81053-1	2	
11	WASHER, 17 SPLIT LOCK ZINC	F81058-1	2	
12	NUT, M16X1.5-08-B THIN ZINC	F81036-6	1	
13	PIN, 45308DNW DETENT	089939	1	
14	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	3	

# Side Fence (CE Version Only) Moving Side Fence Support Bracket



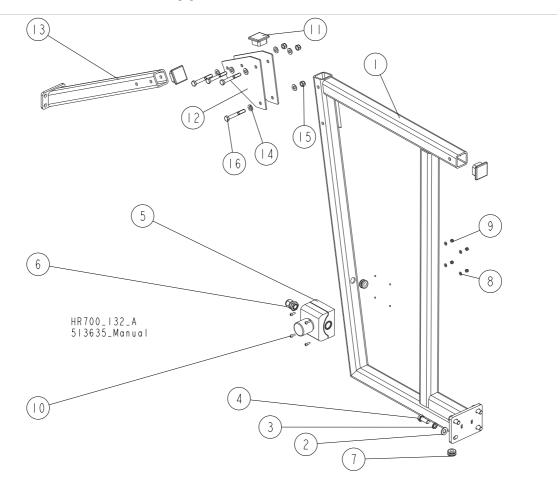
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
15	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2	
16	BOLT, 8/M6X25-12.9 ISO 7379 SHOULDER	F81001-47	2	
17	BOLT, 10/M8X60-12.9 ISO7379/BN1359 BOSSARD SHOULDER	F81003-79	1	
	ARM, SIDE FENCE MOVING - COMPLETE	099464	1	
18	ARM, SIDE FENCE MOVING	099465-1	1	
19	BUSHING, TUF1 10x090 CX	099074	2	
20	CAP, 40X40X(3-4) MOSS TUBE END	097480	1	
21	FITTING, M6 PN/M-86002 GREASE	086280	1	
22	SPRING, MS10-1-1F-1F-1000-100-460 (EUROTECHNIKA) GAS	099446	1	
23	CAP, 40X40X(3-4) MOSS TUBE END	097480	2	
24	GROMMET, 9.5 (3/8") ID RUBBER	025248	3	
25	SWITCH, GSCA 01S1 LIMIT	088407	1	
26	WASHER, 4.3 FLAT ZINC	F81051-2	4	
27	NUT, M4-8 HEX NYLON ZINC LOCK	F81029-1	2	
28	SCREW, M4X40 8.8 HEX SOCKET HEAD CAP ZINC	F81011-37	2	
29	GLAND, PG13.5 CABLE	086524	1	
30	WASHER, 5.3 FLAT ZINC	F81052-1	1	
31	NUT, M5-8 HEX ZINC	F81030-1	1	
32	SCREW, M5X30 5.8 HEX SOCKET HEAD CAP ZINC	F81000-71	1	

# 8.3 Fixed Side Fence Support Bracket & Connecting Bracket



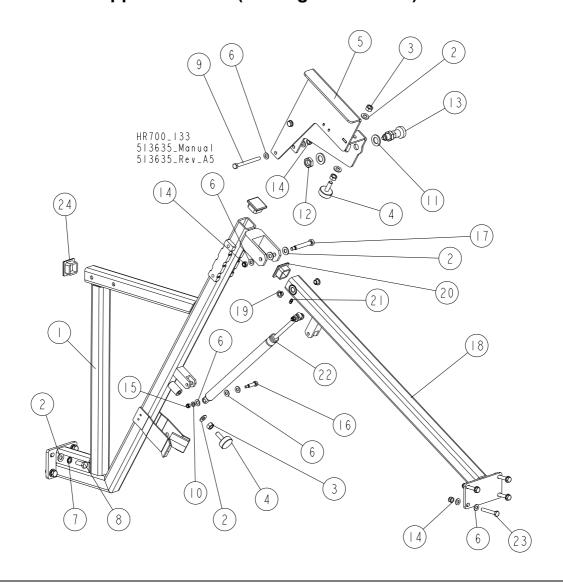
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BRACKET, FIXED SIDE FENCE SUPPORT - COMPLETE	515211	1	
1	BRACKET, FIXED SIDE FENCE SUPPORT	515212-1	1	
2	CAP, 40X40X(3-4) MOSS TUBE END	097480	3	
3	WASHER, 10.5 FLAT ZINC	F81055-1	4	
4	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	4	
5	BOLT, M10X25 8.8 HEX HEAD FULL THREAD ZINC	F81003-11	4	
6	PLATE, CONNECTING	099462-1	2	
7	TUBE WELDMENT, SUPPORT BRACKET	518553-1	1	
8	WASHER, 8.4 FLAT ZINC	F81054-1	8	
9	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
10	BOLT, M8X60-8.8 HEX HEAD ZINC	F81002-54	4	
	BRACKET, CONNECTING - COMPLETE	099443	1	
11	BRACKET, CONNECTING	099476-1	1	
12	WASHER, 8.4 FLAT ZINC	F81054-1	6	
13	NUT, M8 8 HEX NYLON ZINC LOCK	F81032-2	3	
14	BOLT, M8X65 8.8 HEX HEAD FULL THREAD ZINC	F81002-9	3	

# 8.4 Fixed Side Fence Support Bracket



REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BRACKET, FIXED SIDE FENCE SUPPORT - COMPLETE	514365	1	
1	BRACKET, FIXED SIDE FENCE SUPPORT	099451-1	1	
2	WASHER, 10.5 FLAT ZINC	F81055-1	4	
3	WASHER, Z10.2 SPLIT LOCK ZINC	F81055-2	4	
4	BOLT, M10X25 8.8 HEX HEAD FULL THREAD ZINC	F81003-11	4	
5	BUTTON, M22-PV/KCO2 EMERGENCY STOP	094726	1	
6	GLAND, DP9/H CABLE	F81096-2	1	
7	GROMMET, 9.5 (3/8") ID RUBBER	025248	2	
8	WASHER, 4.3 FLAT ZINC	F81051-2	4	
9	NUT, M4-8 HEX NYLON ZINC LOCK	F81029-1	4	
10	SCREW, M4X12-5.8-B CROSS RECESSED PAN HEAD ZINC	F81011-43	4	
11	CAP, 40X40X(3-4) MOSS TUBE END	097480	2	
12	PLATE, CONNECTING	099462-1	2	
13	TUBE WELDMENT, SUPPORT BRACKET	518553-1	1	
14	WASHER, 8.4 FLAT ZINC	F81054-1	8	
15	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	
16	BOLT, M8X60-8.8 HEX HEAD ZINC	F81002-54	4	

# 8.5 Middle Support Bracket (Moving Side Fence)



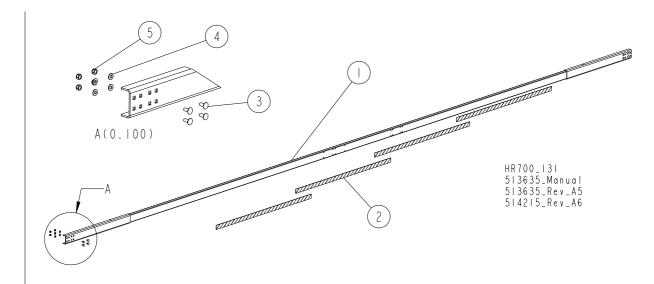
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	BRACKET, MOVING SIDE FENCE MIDDLE SUPPORT - COMPLETE	515197	1	
1	BRACKET, MOVING SIDE FENCE MIDDLE SUPPORT	515198-1	1	
2	WASHER, 10.5 FLAT ZINC	F81055-1	10	
3	NUT, M10-8-B HEX ZINC	F81033-3	3	
4	FOOT, M10	092839	2	
5	BRACKET, LIMIT SWITCH MOUNT	099470-1	1	
6	WASHER, 8.4 FLAT ZINC	F81054-1	19	
7	WASHER, Z10.2 SPLIT LOCK ZINC	F81055-2	4	
8	BOLT, M10X25 8.8 HEX HEAD FULL THREAD ZINC	F81003-11	4	
9	BOLT, M8X90-8.8 HEX HEAD FULL THREAD ZINC	F81002-16	2	
10	WASHER, 6.4 FLAT ZINC	F81053-1	2	
11	WASHER, 17 SPLIT LOCK ZINC	F81058-1	2	
12	NUT, M16X1.5-08-B THIN ZINC	F81036-6	1	

# Side Fence (CE Version Only) Middle Support Bracket (Moving Side Fence)



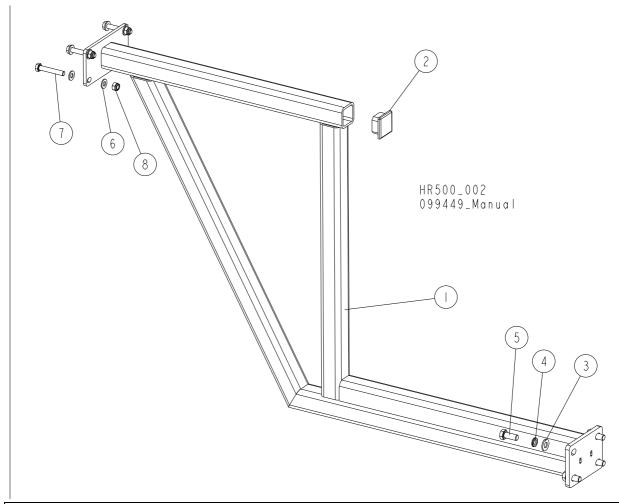
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
13	PIN, 45308DNW DETENT	089939	1	
14	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	7	
15	NUT, M6-8-B HEX NYLON ZINC LOCK	F81031-2	2	
16	BOLT, 8/M6X25-12.9 ISO 7379 SHOULDER	F81001-47	2	
17	BOLT, 10/M8X60-12.9 ISO7379/BN1359 BOSSARD SHOULDER	F81003-79	1	
	ARM, MIDDLE MOVING - COMPLETE	515204	1	
18	ARM, MIDDLE MOVING	515205-1	1	
19	BUSHING, TUF1 10x090 CX	099074	2	
20	CAP, 40X40X(3-4) MOSS TUBE END	097480	1	
21	FITTING, M6 PN/M-86002 GREASE	086280	1	
22	SPRING, MS10-1-1F-1F-1000-100-460 (EUROTECHNIKA) GAS	099446	1	
23	BOLT, M8X50-8.8 HEX HEAD FULL THREAD ZINC	F81002-19	4	
24	CAP, 40X40X(3-4) MOSS TUBE END	097480	2	

### 8.6 Side Fence Barriers



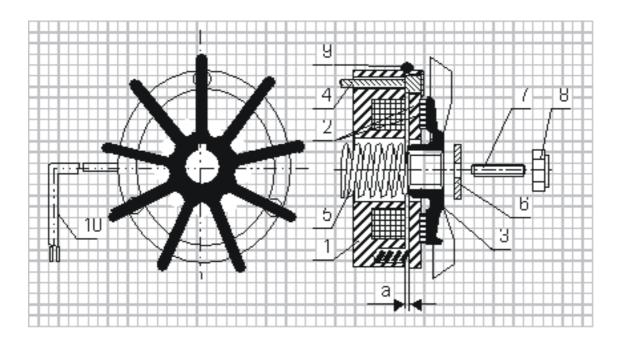
REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	BARRIER, HR700-1/HR700-2 SIDE FENCE - COMPLETE	514367	1/0/0	
	BARRIER, HR700-3/HR700-4 SIDE FENCE - COMPLETE	514366	0/1/0	
	BARRIER, HR700-5/HR700-6 SIDE FENCE - COMPLETE	514215	0/0/1	
1	BARRIER, HR700-1/HR700-2 SIDE FENCE	514359-1	1/0/0	
	BARRIER, HR700-3/HR700-4 SIDE FENCE	514218-1	0/1/0	
	BARRIER, HR700-5/HR700-6 SIDE FENCE	514216-1	0/0/1	
2	DECAL, SAFETY WARNING (BLACK & YELLOW)	099368	1/2/4	
3	BOLT, M8X20-8.8 CARRIAGE HEAD ZINC	F81002-11	8	
4	WASHER, 8.4 FLAT ZINC	F81054-1	8	
5	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	8	

# 8.7 Middle Support Bracket (Fixed Side Fence)



REF.	<b>DESCRIPTION</b> (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY	
	BRACKET, FIXED SIDE FENCE MIDDLE SUPPORT - COMPLETE	515229	1	
1	BRACKET, FIXED SIDE FENCE MIDDLE SUPPORT	515230-1	1	
2	CAP, 40X40X(3-4) MOSS TUBE END	097480	1	
3	WASHER, 10.5 FLAT ZINC	F81055-1	4	
4	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	4	
5	BOLT, M10X25 8.8 HEX HEAD FULL THREAD	F81003-31	4	
6	WASHER, 8.4 FLAT ZINC	F81054-1	8	
7	BOLT, M8X50-8.8 HEX HEAD FULL THREAD ZINC	F81002-19	4	
8	NUT, M8-8-B HEX NYLON ZINC LOCK	F81032-2	4	

### **SECTION 9 DC ELECTROMAGNETIC BRAKE (CE ONLY)**



- 1 Electromagnet,
- 2 Armature complete with brake linings,
- 3 Fan,
- 4 Retaining bolt
- 5 Central spring,
- 6 Special washer,
- 7 Set screw,
- 8 Self-locking nut,
- 9 Sealing ring,
- 10 Output cable.

#### 9.1 Design and principle of operation

The DC electromagnetic brake type H consists of 3 main subassemblies:

- electromagnet (1),
- armature complete (2)
- cast iron fan (3).

**<u>Electromagnet</u>** (1) **energised:** The DC voltage from the motor applied via the rectifying circuit causes the attraction of the armature (2) releasing the brake and thus the fan (3) is free to rotate.

**Electromagnet (1) de-energised:** The electromagnet stops to attract the armature (2) and spring presses the armature with brake linings (2) against the fan and the brake is thus applied.

#### 9.2 Service

During normal operation and at the routine inspections verify the air gap and check if all screws are tight. In case when any symptoms of inefficient braking are observed, then use the self-locking nut (8) to re-adjust the air gap to the value corresponding to Table 1.

Such readjustment may be repeated until the brake linings are completely worn out. When this will occur, a complete armature with brake linings (2) must be replaced.

If the air gap of the brake is correctly adjusted and despite of it the brake does not operate properly (the brake fails to release), it may be caused by:

- the electromagnet (1): burned coil or defected output cable (10),
- rectifying circuit (installed in the electric motor terminal box).

The above mentioned subassemblies should be checked and defected part replaced.

Table 1:

TYPE	H-63	H-71	H-80	H-90	H-100	H-112	H-132	H-160
Nominal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Gap "a"	±0,05	±0,05	±0,05	±0,05	±0,1	±0,1	±0,1	±0,1



# 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:	Horizontal Resaw				
TYPE:	HR				
Models:	HR500EH11S-1/6; HR500EH15S-1/6				
No. of manufacturer:					
Applicable EC Directives:	EC Machinery Directive 2006/42/EC EC Electromagnetic Compatibility Directive 2004/108/EC				
Applicable Harmonized Standards:	PN-EN 1807-2:2013 PN-EN 60204-1:2010 PN-EN 13849-1:2008				
Notified Body according to annex IV :	TUV SUD Product Service GmbH Gottlieb-Daimler Strasse 7 70794 Filderstadt				
Notification No	0123				
Responsible for:	EC type examination				
EC type-examination certificate no.	M8A100755286015				
Responsible for Technical Documentation:	Adam Kubiak / R&D Manager				
	Wood-Mizer Industries Sp. z o.o. 62-600 Koło, ul. Nagórna 114 Tel. +48 63 26 26 000				
Date/Authorized Signature:	23.09.2010 Adam Kubiak				
Title:	R&D Manager				