

# AgriQuip

## R100 Sawbench



## Owners Manual

## Operating Instructions & Spare Parts

**AgriQuip**

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Agriquip thanks you for buying this quality product and insists that you read this booklet. You will find all the information you require for the correct use of the product you have purchased. We would ask you to take special notice of the safety and of the other warnings and to read the whole booklet carefully. You should in keep this booklet in a safe place that is also convenient for easy reference. Agriquip reserve the right to change the contents of this booklet without notice or without incurring additional liability for the purpose of making changes to, and improving the performance of products already delivered.

## Technical Specifications

Dimensions of work top	630 x 930 mm
Overall dimensions	800 x 930 x 1110 mm
Total weight	65 kg
Diameter saw blade	550 mm
Effective depth of cut	190 mm
Material to be worked	Wood
Ambient noise levels with machine in operation	
Average acoustic pressure	93 db
Average acoustic power	108 db
Acoustic pressure at work-place	96 db
Production of dust by machine in operation @ 0°C & 1 bar	15.93 mg/Nm <sup>3</sup>
Maximum PTO speed	540 rpm

**Power Take Off must rotate at 540 rpm**

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The R100 is a bench saw with a circular saw blade for cutting tree trunks, logs and lengths of wood into short pieces that can then be used as firewood for stoves and fireplaces.

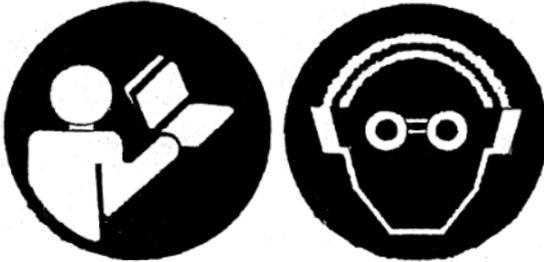


# 1. General Safety Precautions

## 1.1 Safety & Warning Decals

- ★ All warning and recommendation plates as well as the Safety & Warning Decals that are to be found on the machine, are of utmost importance for danger-free operation - they are intended for your safety.

**NOTE:** If decals are missing, damaged or unreadable replace them



This decal warns the user to read this instruction book with care, and, as mentioned in section 1.3 of this manual, that protective gloves and hearing protection should be worn while the machine is cutting.

Hearing Protection: Class 2



This shows the direction of rotation of the cutting blade.



This indicates the presence of moving parts.



This shows the PTO rotational direction and speed.

540 / 1

## 1.2 Power Source

This machine must be connected to the power source according to the instructions given in this booklet, however, neither Agriquip nor the manufacturer is responsible for the safety of the connection itself.

The machine is only completely safe when it has been correctly connected to the power source (*tractor power take off*) according to the following instructions.

- ★ The drive shaft must be connected to the tractor's PTO in such a way so as to ensure that the safety trigger mechanism is able to stop rotation.
- ★ In addition, the point of connection to the power source itself must comply with the safety precautions as required by the current regulations.

## General Safety Precautions *(continued)*

### 1.3 Safety Precautions

- ★ Do not wear loose clothing.
- ★ Always wear PPE such as gloves, glasses, ear muffs and dust-protection mask.
- ★ Do not be use in a poorly-lit environment.
- ★ Use two hands to hold wood while cutting.
- ★ Keep hands away from moving parts.
- ★ Do not attempt to perform repairs to the machine while in operation or when being connected to the PTO.
- ★ You should ensure that the working area is clear of all obstacles at all times to allow complete freedom of movement.
- ★ The machine should be used by trained operators and in areas not accessible to children.
- ★ When there is more than one person in the workplace it is recommended that a safe distance be kept from the machine and its operator to avoid involuntary or accidental contact either with moving parts of the machine or cutting waste.
- ★ The machine should be kept in a dry place protected from water.
- ★ Do not step over or put objects on the drive shaft guard.
- ★ After using machine, do not wash with water but wipe with a dampened cloth.
- ★ In the event that compressed air is used to remove cutting wastes, wear close fitting safety glasses/goggles and a dust mask. Ensure that nobody else is near by.
- ★ Ensure that all controls, protection systems and emergency stops are connected and working correctly.
- ★ Do not activate the tractor PTO emergency stop while the saw blade is rotating.

### 1.4 Emergency stop.

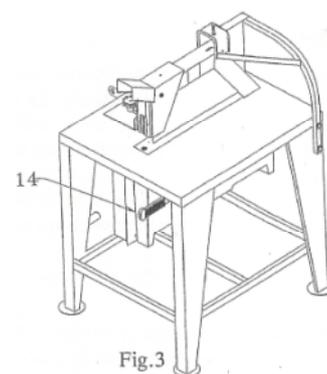
The machine is provided with an emergency stop.

In case of emergency, push the lever with the handle on its top (14) towards the back of the machine to disconnect the blade drive. The saw blade should stop within ten seconds. If the drive shaft from the tractor PTO takes more than ten seconds to stop after activating the emergency stop, screw the two nuts on the release springs that cross the screws to increase the loading on the brake.

Resetting the emergency stop must be carried out when the tractor power takeoff is disconnected.

To reset the emergency stop, disconnect the power takeoff from the tractor and pull the emergency stop lever towards the front of the machine up to end of its movement.

In the event of cable wear or damage, the cable must be replaced with another cable with the same diameter, strength and rigidity, which must be run exactly through the sheaths and the registers like the original cable.



## General Safety Precautions *(continued)*

### 1.5 Transport and handling.

The following methods can be used to transport the machine:

- a) The machine can be transported with a tractor with the machine connected to the three-point linkage.
- b) By two operators; they have to hold it under the working table close to the machine supports (*refer fig 5*).
- c) The machine can be moved by a single operator if the wheels (*see section 6*) that can be supplied as an optional part are fitted.

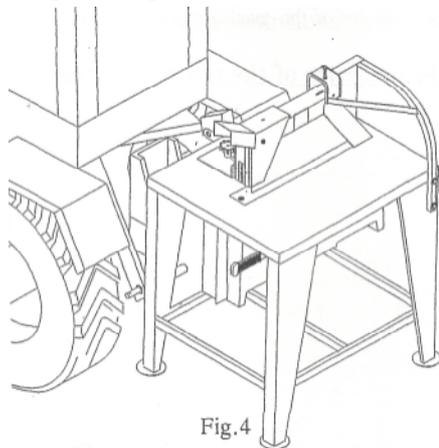


Fig.4

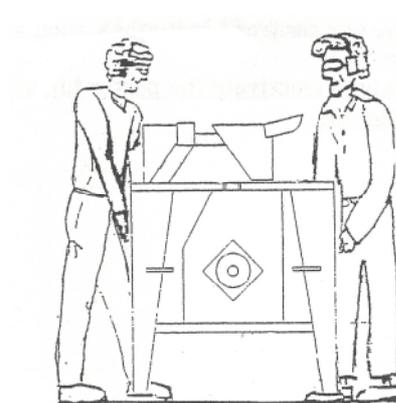


Fig.5

## 2. Connection & Starting

### 2.1 Installation and Preliminary Checks

If the drive shaft joint is left connected to the machine, then lay the end that connects to the tractor in the special drive shaft joint support on the three-point linkage.

Before connecting the drive shaft and starting the machine, you should carry out the following operations:

1. Place the saw on a secure horizontal surface to ensure its maximum possible stability.
2. Check that the saw blade is firmly held in position.
3. Check that the nut holding the saw blade (#9 of parts list) between the two flanges (# 33 & #35 of parts list) is tight so as to stop movement of the saw blade.

### 2.2 Starting

1. Connect the saw to the tractor three-point linkage, securing with the appropriate pins.
2. Connect the drive shaft first to the machine and then to the tractor, ensuring that the check pin of the clutch clicks fully into place.
3. Check that the emergency stop lever is in operating position, with the handle turned towards the operator workstation; if it is not activated, connect it by pulling the lever towards the front of the machine up to end of its movement.

**CAUTION:** Do not activate the tractor PTO emergency stop while the saw is rotating.

4. To start the machine, switch the tractor on and engage the power takeoff.

### 3. Safe Working Instructions

#### 3.1 Instructions for Use

Ensure the saw is set up for normal use (*see section 2*). The saw is designed for cutting short lengths of fire-wood (it is advisable to cut pieces over 2 metres in length or 100 kilograms, so as not to compromise the stability of the saw).

1. Place the trunk on the work bench while the blade is not rotating.
2. Ensure that the saw is stable, do this by starting the tractor and engaging the PTO.
3. The operator, wearing gloves, safety glasses and ear -muffs, holds the trunk with both hands and by pushing it forward, he causes the saw guard to move horizontally.
4. Once the cut has been completed, remove the two cut pieces and the horizontal guard will automatically go back to its initial position.

#### 3.2 Special Warnings

- ★ In case of danger, push the emergency stop lever towards the rear of the machine, which will stop the blade rotating by disconnecting the machine from the PTO.
- ★ Use the emergency stop to disconnect the power takeoff drive from the tractor in emergencies only.
- ★ When there is no emergency, stopping should be effected by disengaging the PTO using the tractor controls.
- ★ Do not misuse the emergency stop.

#### 3.3 Completion of Work

1. Stop the saw blade rotating by using the tractor PTO controls and not the emergency stop (use the emergency stop lever only in emergencies).
2. Switch the tractor off.
3. Disconnect the drive shaft, first from the tractor and, secondly, from the machine
4. Disconnect the three-point linkage.

**NOTE:** Carry out these operations even if the machine will not be operated for a short time.

## 4. Maintenance

**Before carrying out maintenance work, disconnect the PTO**

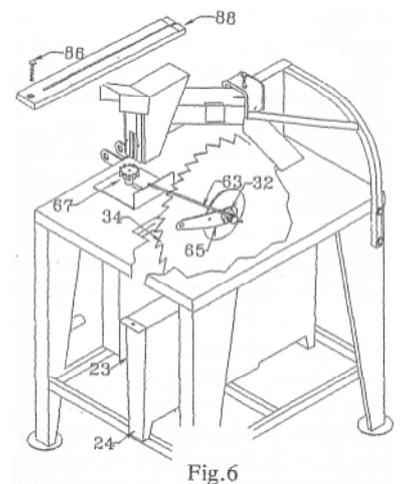
### 4.1 General Maintenance.

The saw does not require any special maintenance operations; however, it is good practice to comply with the following advice.

- ★ Keep the machine in a dry place protected from bad weather conditions.
- ★ Oil the blade periodically to avoid rust.
- ★ Periodically clean the saw guard by removing sawdust
- ★ Replace the saw guards/guides (#66 & #88 of parts list) when they become worn.
- ★ Regularly sharpen the blade  
**NOTE:** The saw blade should be replaced when it has reduced in size by approximately 30 mm from the original size or if has been damaged during use.
- ★ Check the effectiveness of the recall springs (#72 of parts list).
- ★ Check the wear and tear of the emergency stop brake (#57 of parts list) if the brake is worn lower than 1 mm, or is visibly worn out, replace it with another of the same type.
- ★ Clean sawdust from the emergency stop system with compressed air.

### 4.2 Saw Blade Replacement

1. Stop the machine and disconnect the drive shaft.
2. Unscrew the knob (67) which secures the key (65) and the arresting pin of the shaft (63).
3. Unscrew the self-locking nuts (18) that secure the saw guard; the guard has to be removed so that you can see the nut that secures the saw blade.
4. Remove the screw (25) and the horizontal guide (88).
5. Insert the key into the left M24 nut (9) and the pin in the appropriate hole in the shaft.
6. Hit the key with a hammer to loosen the nut (not forgetting that the nut is threaded in the opposite direction to the rotation of the saw blade).
7. Replace the saw blade.  
**NOTE:** Check that the cutting teeth are orientated in the same direction as shown in fig 6, or by checking the decal attached to the guard.
8. Tighten the nut ensuring that the saw blade is securely held.
9. Replace saw guard by tightening securing nuts.



## Maintenance *(continued)*

### 4.3 Emergency Stop Cable Replacement

To replace the emergency stop cable, follow the following procedure:

1. Unscrew the binding post (#10 of parts list).
2. Pull the cable (#11 of parts list) from the lever (#15 of parts list) so that it can be taken out of sheath to be replaced.
3. Take replacement cable of the same type and diameter, grease it, and insert it through the register on the lever, the register of the swinging bench and put it into the sheath.
4. Pass the cable through the hole on the washer (#42 of parts list) and finally insert the binding post in it without screwing it.
5. Lower the release lever into stopping position and screw the binding post so that the cable is under slight tension.
6. Pull the emergency stop lever (#15 of parts list) so that the brake actuator (#40 of parts list) at the non-hinged end is lifted up against the handle; adjusting the registers if necessary, until the end of the actuator rests against the handle.

### 4.4 Emergency Stop Brake Replacement

To replace the worn brake, follow the saw blade replacement instructions, as described in section 4.2 and remove the belts as described in section 4.5.

1. Set the emergency stop lever in the braking position and unscrew the binding post (#10 of parts list) from the cable (#11 of parts list), then pull the cable out of the frame and out of the washer located at the tip the screw (42).
2. Unscrew nuts and remove screws (13) to release the springs (41) from the emergency stop hinge.
3. Undo the screws (13) that fasten the saw blade bearing support (46) and extract it from the frame.
4. With the help of circlip pliers, remove the circlip (52) from the end of the saw shaft and remove the pulley.
5. Check that the connection is intact, remove the anchor screws and nuts (59) that fasten the brake to the emergency stop lever (#15 of parts list) and pull it out.
6. Replace the brake with a new one and screw the screws into their original position.
7. Clean the keyway inside the pulley and grease it  
**NOTE:** Do not grease the brake disk or the channels for the belts.
8. Replace the pulley on the saw shaft inserting the circlip.
9. Place the saw shaft bearing support back into the frame and tighten the anchoring screws (26)
10. Replace the screws (26) and the springs (41) and tighten the springs.
11. Assemble the cable (28) and lock it by means of the binding post (10).
12. Assemble the belts and replace and secure the cover around the belts.
13. Pull the emergency stop lever (#15 of parts list) so that the brake actuator (40) at the non-hinged end is lifted up against the handle, adjusting it by means of the registers, until it rests against the handle.
14. Reassemble the saw blade and close the blade guard.

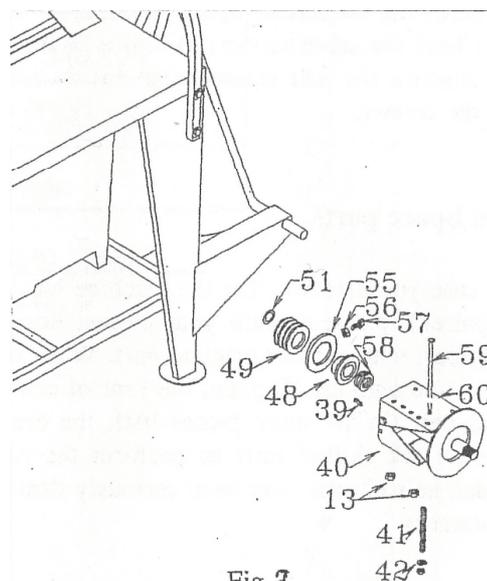


Fig. 7

## Maintenance *(continued)*

### 4.5 Belt Tensioning

In order to ensure the belts are under the correct tension, take the following steps:

1. Stop the machine and disconnect the drive shaft.
2. Unscrew the screws and nuts and remove the belt guards
3. Check that the belts can be deflected 12 mm at a point midway between the pulleys
4. To increase belt tension, loosen the four anchoring screws (28) of the assembly.
5. Loosen the two screws (25) so that the assembly can be moved back to a new position so that the belts are under the correct tension.

**NOTE:** Keep the axis of the gearbox parallel to the bearing support axis.

6. Tighten the two screws (25) and lock into position with the lock nuts, and tighten the assembly anchoring screws (28).
7. Reassemble the belt guards ensuring the screws are tight.
8. Check the arbor support (#4 of parts list) is centred in the drive shaft guard (#1b of parts list) – If not, loosen the four screws (#1a of parts list), position in the right place and retighten the screws.

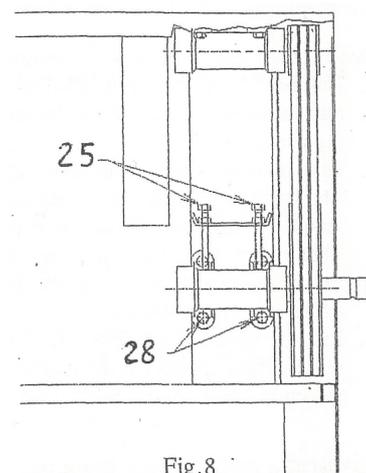


Fig. 8

### 4.6 Spare Parts

In the event that you discover that the machine has been damaged but it keeps functioning (even after being repaired), please consult your closest Agriquip dealer who will take care of the replacement of that part with another original part.

When ordering: please quote the Machine Model, Serial Number, Year of Manufacture, Part Number and Quantity Required.

eg.	Model N°:	R100	<i>found on ID Plate</i>
	Serial N°:	12345	<i>found on ID Plate</i>
	Year:	2006	<i>found on ID Plate</i>
	Part N°:	Z00 00500	<i>found from Parts List</i>
	Quantity:	1	

All persons involved with the servicing, repair or maintenance of the machine must become familiar with these safety instructions before working on the machine due to the risks involved and must also observe the instructions and guidelines given in the manual.

This also means:

- ★ that work is only allowed to be carried out in accordance with the instructions and settings given in this manual.
- ★ that Department of Labour – OSH and LTSA regulations are to be observed.
- ★ that only original or equivalent replacement parts, accessories and lubricants are used and installed correctly. *A replacement part and/or lubricant is considered to be equivalent if it has been rated as such by the manufacturer or if it is possible to prove that it possesses all characteristics required for the function(s).*
- ★ that, in case of damage, alterations or modifications made to the machine without Agriquip's written consent, will free the manufacturer or Agriquip from any liability and will invalidate the warranty.

**Non-observance of the aforementioned rules and regulations will be considered to be gross negligence and any resulting damage and/or consequences will be at the user's own risk!**

## Maintenance *(continued)*

### 4.7 Warranty

- The Agriquip R100 Saw Bench is covered by a comprehensive warranty against faulty materials and workmanship provided that:
  - ◆ The machine is operated in normal use as set out in this Owner's Manual;
  - ◆ The machine is correctly serviced and maintained as specified in this manual;
  - ◆ The machine is worked within its stated capacity (i.e. horsepower limit and P.T.O. speed);
  - ◆ The machine is not subjected to any modifications, including non-genuine parts, or defects resulting from repair or alteration performed by other than authorised Agriquip dealers;
  - ◆ Agriquip is in receipt of duly signed pre-delivery and installation certificate;
  - ◆ The machine has not been damaged from improper use or by the use of non-genuine parts.
- Agriquip warrant, subject to the conditions mentioned above, that should any defect in workmanship or materials occur in the goods of Agriquip, within 6 months from the date of original purchase, or 500 hours of machine operation (whichever comes first) we will repair or, at our option, replace the defective goods without making any charge for labour or materials. We will also allow provision within our terms and conditions a labour charge of \$30 (+GST) where repairs are to be carried out by an authorised dealer.
- Machines sold into the hire industry shall be void of warranty.
- The following items are not covered by Agriquip warranty:
  - ◆ Hydraulic rams and hoses;
  - ◆ Freight costs;
  - ◆ Loss of income from the machine due to a warranty fault;
  - ◆ Use of non-genuine parts to re-instate the machine.
- Definition of Warranty Period  
The warranty expiration date is determined by calendar months from date of delivery to the first owner/user and is not affected or prolonged because the machine is idle for any part of the warranty period.

**NOTE! Both Agriquip and the manufacturer reserve the right to introduce modifications to its products and/or to perfect them, without any obligation to apply the modifications to products previously manufactured.**

## 5. Description & Use of Optional Accessories

### 5.1 Introduction

Wheels are an optional accessory that can be fitted to the R100 saw bench. They can be supplied when purchasing the machine or mounted afterwards. They offer the operator the possibility of moving the machine with less effort and with no additional lifting devices.

### 5.2 Wheel Attachment

1. Put the machine on a horizontal and even surface (disconnected from any energy sources).
2. Hold the wheels on to lever side.
3. Roll axle backwards (so that the lever is in a vertical position).
4. Move the wheels under the chassis until the support bracket with no lever comes out from the other side of the bench.
5. Move the support brackets so that their central holes (A) align with the centre holes of the saw bench chassis (B)
6. Secure both metal support brackets with a HT M8x35 screw (7) through centre holes (A-B), and a HT M8x16 screw (8) through the other holes.
7. Secure wheels with the lynch pin (5) putting it through the third hole of the chassis (D) and bracket hole (E). By doing so, both wheels are mounted in the upper position (ie. for when the bench is working).

### 5.3 Moving Saw Bench with Wheels Attached

1. Switch the machine off, disconnect drive shaft and secure moving parts (refer previous sections).
2. Staying on the left-hand side of the bench; turn towards the operator's side.
3. Lift the lynch pin (5).
4. Maintaining the machine in the same position with your left arm
5. Push on the wheel lever with your left foot.
6. Reposition the lynch pin (5) back into the original hole on the chassis (D) and in the new corresponding hole on the brackets (F).
7. Lift the machine on the operator's side and move it by pulling it.

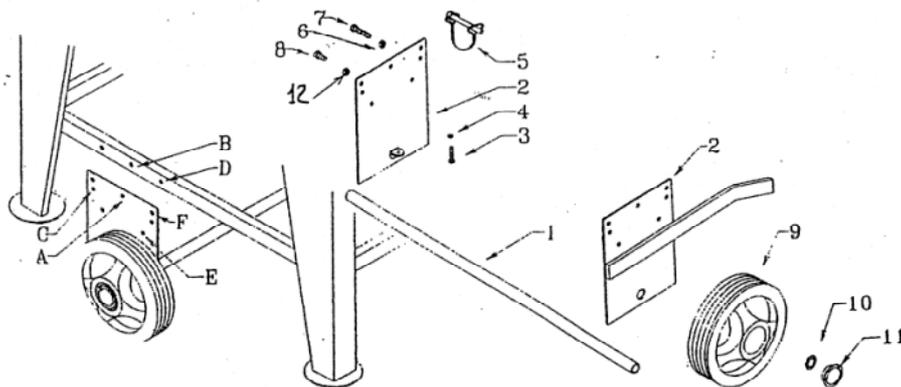
After moving the machine:

1. Remove lynch pin (5).
2. Go towards the machine's left-hand side; turn towards the operator's position and with left hand pull upwards on the wheel lever.

**Warning:** Keep well clear of the machine's support feet.

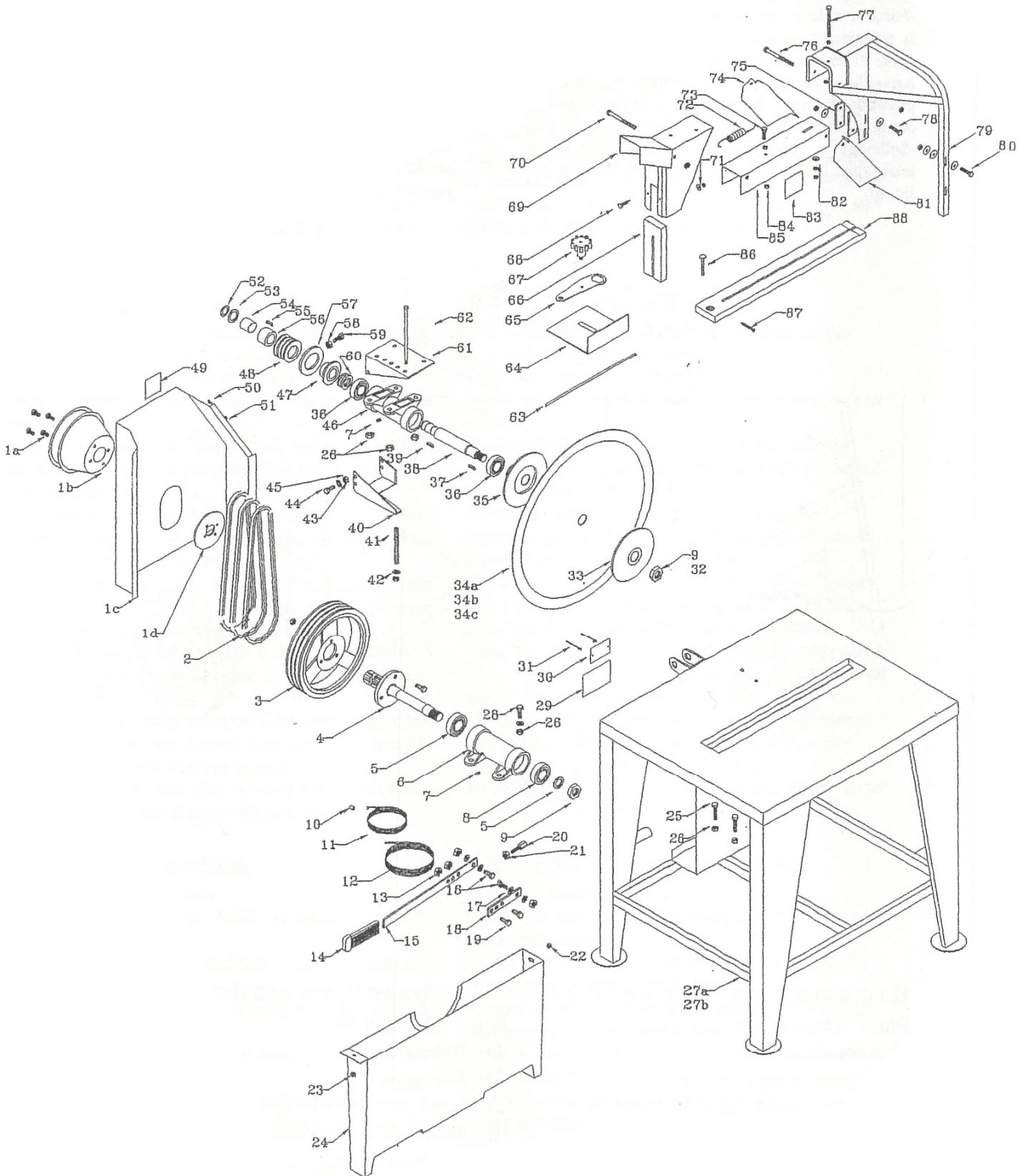
Now the machine is supported by four feet.

3. Lift wheels until the hole on the chassis (D) and the hole on the bracket (E) are aligned and reinsert lynch pin(5).



Item	Description	No. of	Part N°
1	Wheel axle	1	R01 16002
2	Support Bracket	2	R01 16003
3	Screw	2	E94 05030
4	Nut	2	E31 00005
5	Lynch Pin.	2	W01 00002
6	Nut	2	E40 00008
7	Screw HT	2	E02 08035
8	Screw HT	2	E01 08016
9	Wheel D200.	2	G05 00200
10	Circlip	2	G05 00202
11	Hub Cap	2	G06 00201
12	Nut	2	E30 00008

# R100 Saw Bench Spare Parts List



Item	Description	No of	Part N°
1a	Screw HT	4	E01 10010
1b	Drive shaft guard	1	G11 00000
1c	Belt guard	1	R10 00158
1d	Drive shaft mounting disc	1	G11 01000
2	V belt A43.	3	C01 00043
3	Triple pulley	1	S02 00100
4	Arbor support	1	A01 00001
5	Bearing	2	W02 00100
6	Bearing housing	1	S01 00000
8	Washer	2	E54 00024
9	Nut	1	E37 00024
10	Cable ferrule	1	G08 20020
11	Cable	1	G08 10023
12	Cable sheath	1	G08 10022
13	Nut .	4	E40 00010
14	Knob	1	G08 00002
15	Long lever	1	Z00 01000
16	Screw	1	E94 10025
17	Flat washer	8	E50 00010
18	Short lever	1	Z00 01100
19	Screw	2	E12 10050
20	Cable sheath register	1	G08 20000
21	Nut	1	E33 00010
22	Nut	3	E40 00008
23	Nut	5	E30 00008
24	Saw blade guard	1	R10 00104
25	Screw HT	2	E01 10080
26	Nut	13	E30 00010
27	Chassis R100S/1	1	R01 08100
28a	Flat washer	4	E53 01030
28b	Screw HT	4	E01 10025
28c	Screw HT	3	E01 10020
29	"Hearing & safety glasses" decal	1	T02 00002
30a	Identification plate	1	T01 00100
31a	Drive shaft supporting hook		R01 16004
31b	Screw HT	1	E01 08016
33	Outside flange Ø125	1	S03 01003
34a	Saw blade Ø550	1	D01 00550
34b	Saw blade Ø550 rip	1	D02 00550
34c	Saw blade Ø550 tungsten tip	1	D05 00550
35	Inner flange Ø125	1	S03 01002
36	Bearing	2	W02 00101
37	Key	1	E92 06620
38	Left Shaft	1	A01 00011
39	Key	1	Z00 00500
40	Brake actuator frame	1	E96 04032
41	Release spring.	2	110011
42	Washer with two holes	2	Z00 01500
43	Nut	2	E32 00008
44	Screw HT.	2	E01 12025
45	Washer	2	E55 00008
46	Bearing housing.	1	Z00 00001
47	Brake clutch	1	Z00 00400
48	Triple pulley	1	S02 00100

Item	Description	No of	Part N°
49	"Moving parts" decal	1	T02 00001
50	Screw HT	4	E01 06010
51	Nut	4	E30 00006
52	External circlip	7	E86 00020
53	Bush	1	Z00 00012
54	Internal circlip	1	Z00 00013
55	Plug	1	Z00 00700
56	Pulley clutch	1	Z00 00110
57	Brake disc	1	Z00 00300
58	Nut	2	E41 00006
59	Screw HT	2	E11 06025
60	Emergency Stop reset spring	1	Z00 00800
61	Emergency Stop framework	1	Z00 00600
62	Screw HT	1	E01 08240
63	Blade replacement rod	1	R01 00360
64	Square	1	80100370
65	Key	1	R01 00350
66	Moving front saw guard	1	V01 00007
67	Securing knob	1	R10 00300
68	Screw	2	E94 05030
69	Hinged upper saw guard	1	R10 00002
70	Screw HT	1	E04 08095
71	Nut	2	E31 00005
72	Upper guard return spring	1	1 10 0005
73	Screw HT	1	E02 06020
74	Rear saw guard	1	R10 00025
75	Spacer	2	R0105003
76	Screw HT	1	E04 08090
77	Screw HT	1	E02 08080
78	Screw HT	2	E02 08035
79	Saw guard supporting bracket	1	R10 00402
80	Screw HT	2	E02 08040
81	Upper left saw guard	1	R10 00024
82	Flat washer	1	E53 00840
83	"Rotation direction" decal	1	T02 00000
84	Nut	2	E31 00006
85	Fixed upper saw guard	1	R10 00012
86	Screw	1	E94 08040
87	Screw	1	E83 05060
88	Saw guide	1	R01 01002
107	Rubber cotter pin	1	W01 00001
110	Screw HT		Z00 01600
111	Flat washer	1	E54 00008
112	Screw HT	1	E11 08020
113	Nut	2	V01 00003

