

 **FARMA**®

**Log Lifter**  
**1000**

EN\_V1.0-2019W11

Original instruction

**Instruction book**



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## IDENTIFICATION OF MACHINE

This instruction manual applies to the Farma Log Lifter 1000 and contains information for its safe use.

EC declaration shall be submitted always with this manual to declare the conformity with the EC directive 2006/42/EC and indicating serial number of the machine. Serial number is located in identification plate.

### *EC Declaration of Conformity of the Machinery (sample)*

Manufacturer:

**Fors MW AS**

Tule 30

76505 Saue

Estonia

The technical file is compiled by \_\_\_\_\_;

I hereby confirm that this equipment:

Trade mark: **FARMA**

Function: **interchangeable equipment**

Type: **FLL** variant: **1000**

Serial no.: **FLL010\_01\_-----**

Trade name: **FARMA Log Lifter 1000**

Trade name: **FARMA RW600F**

Type: **FW** Variant: **RW600F**

Serial no: **FW060F\_01\_-----**

Manufacture year: **20\_\_**

is manufactured accordingly to demands in **directive 2006/42/EC** and therefore can be used mounted together with other equipment to provide a complete machine.

The equipment can't be used before the machine or the formation that it will take place in, is accordingly to the demands of the EC Machinery directive.

For the guarantee and safety, it is of uttermost significance that the instruction book is read before the machine is put into service.

Saue, Estonia

Date: \_\_\_\_-\_\_\_\_-\_\_\_\_\_2019-03-12

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CEO


## INTRODUCTION

This Manual gives the owner/operator information about maintaining and servicing FARMA Log Lifter 1000 and provides instruction for safe and proper use of the machine.

Even if you have experience of this type of product, we ask that you read and understand the contents of this manual completely and become familiar with your new machine before operating it. This Manual contains information that could be vital for safety and efficiency, as well as to ensure the validity of the factory warranty.

If you have questions concerning information or availability of manuals in other languages, contact your dealer.



Throughout this manual information is provided by the sign  - read carefully and comply with those messages – it will improve your operating and maintenance efficiency, help avoid breakdowns and damage and extend your machine's life. Message **NOTE!** indicates that the product, process or environment may cause damage, as well as indicating the risk of minor injuries. These markings are used to draw the attention of readers to the fact that this is an area of particular importance.

Do not use this machine for any applications or purposes other than those described in this manual or applicable for approved attachments. If the machine is to be used with special attachments or equipment other than those approved by Fors MW, consult your dealer. Any person using nonapproved attachments or making unauthorized modifications is responsible for the consequences.

The dealers are ready to provide you with any assistance you may require, including providing genuine service parts. All serviceparts should be obtained from your dealer. Provide complete information about the part and include the model and serial numbers of your machine.

Please be aware that Fors MW continuously improve its products and reserves the right to make changes and improvements in the design, construction and also in instructions of any part without obligation to install such changes on any unit previously delivered.

Fors MW conforms to ISO 11647 for safety marking in accordance with the EC directive 2006/42/EC.

**Manufacturer:**  
 AS FORS MW  
 TULE 30  
 765 05 SAUE  
 Tel: + 372 679 0000  
 www.forsmw.com

**Dealer:**

## 1. SAFETY INFORMATION

### 1.1. GENERAL SAFETY INFORMATION



**Carefully read through the instruction manual before using the log lifter.**

**Important data relating to your particular log lifter can be found in the log lifter's technical data. Incorrect usage can result in injuries to you and damage to the log lifter.**

Operating a log lifter 1000 requires a level of expertise as well as knowledge about the machine you are using. It is important for you to train with regard to the log lifter's behaviour. Practice the movement pattern and always work with smaller loads until you are completely familiar with the log lifter. Do not allow to use log lifter by someone who is not familiar with operating Log lifter.

FARMA log lifter is intended for lifting within agriculture and forestry, and may only be used by individuals who have knowledge about the handling of agricultural machinery.

FARMA log lifter is not intended to use for grubbing the trees/stumps, pushing the objects with upper jaw nor lifting people. It is prohibited to push the loglifter with loader.

Take care to ensure that nobody is within the safety zone (20 m).

The recommended ambient working temperature for this machine is -30°C to +40°C.

### 1.2. SAFETY MESSAGES

- It is prohibited for unauthorised parties to be within the log lifter's risk zone, which is 20 m! The user must have full visual control over the working area. Always maintain a visual check on the work area. Never stand or walk under suspended loads.
- Always pay attention when working close to electrical cables. Maintain a safe distance. Bear in mind the risk of unforeseen movements. If the log lifter should come into contact with a power line for any reason:
  - Warn people in the vicinity of the log lifter not to touch the machine;
  - Do not touch any metal parts.
- It is important for you to adapt your speed to the driving situation. Drive carefully on sideways inclines. The same applies on slopes.
- Risk of overturning. Immediately lower the log lifter by moving the control lever

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to the lowering position. Ensure that the tractor is always standing on firm ground so that there is no risk of overturning. Never overload the log lifter.

- Do not place your hand or any other part of your body into the machine, the wiring system or under the load while work is in progress. It is a risk getting trapped between the log lifter's parts or between the tractor/loader and the log lifter.
- Stop working by lowering the log lifter to a firm surface, switch off the engine, engage the parking brake and remove the ignition key to prevent unauthorised usage.
- Always read through the relevant safety instructions when connecting and using the log lifter's hydraulics. All hydraulic hoses should be considered to be pressurised!
- Carefully read through the warning information on the oil and grease products you are using, and follow their instructions accurately! During service works wear correct protective equipment and seek medical attention immediately if got on the skin or into the eyes. It is prohibited to release oil onto the ground or into watercourses.
- If repairs or modifications require welding work, you must first contact your dealer, who will provide you with the necessary welding instructions. Incorrect welding or ignorance during welding can result in sudden breaks in the structure!
- When connecting and disconnecting the log lifter, bear in mind the risks arising from clamping, slipping, and the risk of hydraulic high-pressure jets and hot oil. Ensure that neither the hydraulic pump nor the power take-off is connected
- During loading and transport on public roads follow the applicable traffic legislation!
- Always be sure that the load is securely affixed to the grapple to avoid drop-down of the load.

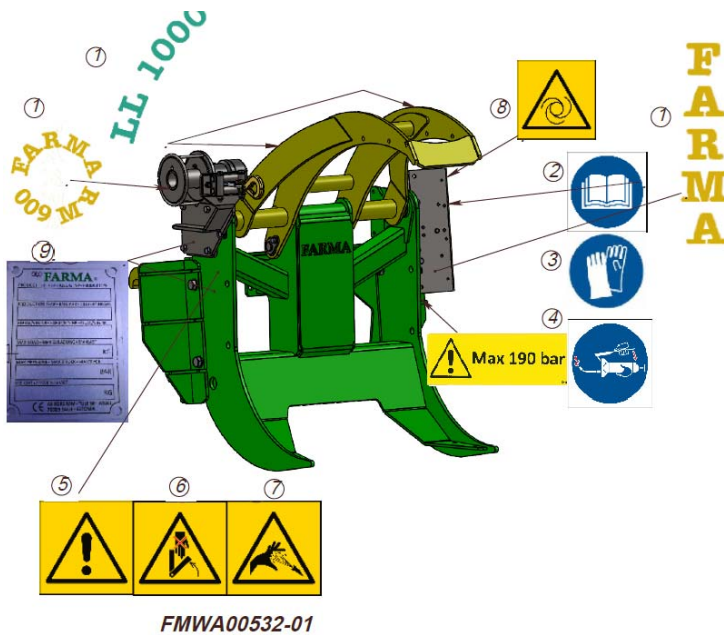
### 1.3. LOCATION OF THE LABELS ON THE PRODUCT

The log lifter is equipped with a range of signs and labels relating both the safety and information of the machine. Check that all the labels are in the correct positions and visible. If signs or labels peel off or get damaged, they must be replaced. For replacement labels contact to your dealer who organizes new set of labels and iguide you for replacement.

**FMWA00532 - LL 1000 label set**

Item	Label/ pictogram	Descriptions
1	LL 1000, FARMA, Log Lifter	Logos of company and machine.
2	<b>Instruction manual</b> 	Read the instruction manual carefully before starting to use the log lifter. Ignoring this can be potentially dangerous.
3	<b>Gloves</b> 	Use appropriate safety equipment in order to avoid injury when using the log lifter.
4	<b>Lubrication</b> 	This label used to show the importance of regular lubrication of the log lifter. Lubrication points and schedule is in chapter <i>Lubrication</i> .
5	<b>Warning</b> 	Carefully read and comply with the instruction manual and work instructions.
6	<b>Risk of crushing injuries</b> 	There is a risk of clamping or crushing injuries during work and maintenance. Do not place your hands to the machine or any other moving part.
7	<b>Hydraulic fluid under pressure</b> 	Hot hydraulic fluid at high pressure levels can occur in the hydraulic system. Take care when connecting, disconnecting and replacing hoses.
8	<b>Warning regarding remotely started machine components</b> 	If the log lifter is equipped with a winch and/or radio control of log lifter functions, these can be started without anybody being in contact with the lifter. Ensure that the area around the log lifter and the winch is free before starting this function, and that nobody is within the risk zone (6m).
9	<b>FARMA designation plate</b>	Each log lifter that is delivered is supplied with a designation plate. Ensure that the log lifter has this plate and check the data contained on the plate. Do not exceed permitted maximum load.

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## 2. OPERATION

### 2.1. CONTROLS AND DISPLAYS

The Farma Log lifter intended to be controlled through tractor hydraulic levers. Before you connect the log lifter to the tractor's hydraulic system, you must have read through the tractor's instruction manual so that you know how the log lifter is to be connected to the tractor. Take extreme care when connecting the log lifter to and disconnecting it from the tractor or trailer.

### 2.2. OPERATING INSTRUCTIONS

#### 2.2.1. UNLOADING PRODUCT

Before unloading the log lifter, check visually that the product is not damaged during transportation. If it is damaged, inform the transportation company and the dealer or manufacturer immediately.

Ensure that you have enough space for unloading the product. Wear personal protective equipment such as helmet and footwear.

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2.2.2. BEFORE OPERATION

Connect both the hydraulic hoses for the cylinders to the tractor’s double-action hydraulic outlet. Connect hydraulic hoses to the tractor’s hydraulic outlet. Ensure that the quick couplings are clean and that they lock securely.

If equipped with winch then connect the hydraulic hose marked "A" to the tractor’s pump outlet and hose marked "B" to the tractor's tank inlet. At first connect "B" hose then "A" hose.

For operating a log lifter it is required that operator reads and understands the operating procedures. A pre-operation checklist is provided for the operator to ensure safe usage of log lifter.

Before operating the machine and each time thereafter, the following areas should be checked:

Pre-Operation Checklist	✓
Check that personal protection equipment is used and in good condition.	
Check and lubricate the machine per the schedule ( see Maintenance Section)	
Check condition of all hydraulic components. Replace is needed	
Check all fasteners and tighten if needed (see "Tightening torques" table).	
Check that the log lifter is securely and appropriately fixed to the tractor or trailer.	
Check the condition of the hydraulic winch, and fairlead (fairleader) components, winch system must move freely to operate properly.	
Check that jaws move freely.	

2.2.3. OPERATING

This log lifter is only intended to be used and operated from the tractor’s driver’s seat. Always adapt your operating to your level of experience.

Keep everyone out of the working zone during operation. Logs could roll in unpredictable ways;

**NOTE:** If damage should occur during use, the work must be stopped immediately. The fault should be identified and eliminated before starting to use the log lifter again.

**Sideways inclines**

There is always a danger when operating on sloping terrain. When driving on a sideways incline, the risk of overturning can be reduced by lowering the log lifter as low as possible.

**Operating Log lifter**

- Move slowly to the object intended to lift.

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- Lower bottom jaw to the bottom edge of lifting object. Do not push the jaw into the ground.
- Be sure that the grapple is entirely opened before grabbing. It is prohibited to push the object with upper jaw.
- Move slowly next to the object and close the upper jaw. Be sure that lifting object is safely fixed between the jaws.
- Lift the object to desired place.

### **Operating with winch**

- Winching angle should be less than + 25°. Operate only on flat ground with the base lowered to the ground for stability;
- Always winch up a slope. Winching down a slope or on hillsides could result in crushing injuries resulting from a log rolling down hill or may cause your tractor to roll over;
- When using snatch blocks to winch at difficult angles, be aware of danger zone between the snatch block, log and skid steer;
- Always wind the wire under load, wire will not wind properly if not under load;
- Check wire condition before using winch. Wire may break during operation if it is corroded, knotted, has broken strands or sharp kinks. Replace wire if damaged;
- Do not touch wire during operation.

#### **2.2.4. WORKING IN EXTREME CONDITIONS**

Note that when working in low or high temperatures, the level of wear and stress on seals and hoses increases. The durability of the steel is also impaired, and cracks can occur. The recommended ambient working temperature for this machine is -30°C to +40°C.

When working under extreme conditions, work with smaller loads than normal in order to prevent damage.

During extremely warm periods, take care with the temperature of the oil. Temperatures above +80°C destroy the oil's properties and damage seals and hoses.

When working in cold conditions, always allow the hydraulic fluid to circulate freely for a while before operating. Then operate each function a number of times to allow seals and hoses to soften up before applying full pressure.

#### **2.2.5. CLEANING**

It is important to clean your log lifter regularly. It helps to maximize the life time of your machine. Remove accumulated dirt and dust and clean simply with cold water using sponge or soft brush. If necessary, use an environmentally friendly detergent.

Lubricate the Log lifter after cleaning. When lubricating with new grease, it forces the water away from the surfaces and thereby prevents corrosion and wearing.

**NOTE:** Avoid high-pressure washing when cleaning. Do not use warm or hot water, it dissolves the grease.

#### 2.2.6. DISCONNECTING AND STORAGE



**The oil can be very hot! Do not allow the hydraulic hoses to hang down to the ground!**

- Before lowering the log lifter onto its storage surface, ensure that the surface is flat and stable. Store the log lifter under a roof, or if not possible, covered with a tarpaulin;
- Support the log lifter before disconnecting from the tractor/loader to ensure it will not overturn during storage.
- Switch off the tractor's hydraulic pump and power take-off. Release the remaining hydraulic pressure;
- If equipped with winch then disconnect "A" hose first then "B" hose;
- Lubricate the piston rods of cylinder or leave grapple to closed position.

**NOTE:** A log lifter in storage is not a play area for children.

#### 2.3. TROUBLESHOOTING

##### In case of emergency stop

- Keep holding the lever until the load is on the ground. Do not interrupt the lowering movement, as the sudden stop of the load will increase the risk of overturning;
- If the tractor overturns, follow the instructions found in the tractor's cab. Do not jump out of the cab. There is a risk that you might end up under the falling load or under the overturning tractor.

Fault symptom	Possible reason and action
Jaws or winch not moving or moving slowly	<ul style="list-style-type: none"> <li>• Not enough oil - check the oil level and add oil if needed;</li> </ul>
	<ul style="list-style-type: none"> <li>• Oil leakage - inspect and clean hydraulic connections;</li> </ul>
	<ul style="list-style-type: none"> <li>• Defective pressure limiting valve - replace the valve;</li> </ul>
	<ul style="list-style-type: none"> <li>• Oil is not moving forward freely - check the oil level, hydraulic filter and pump;</li> </ul>
	<ul style="list-style-type: none"> <li>• Incorrect oil viscosity - change the oil;</li> </ul>
	<ul style="list-style-type: none"> <li>• Pump is not working - replace or fix the pump;</li> </ul>
	<ul style="list-style-type: none"> <li>• Defective cylinders or seals - check the cylinders and change seals if needed;</li> </ul>

	<ul style="list-style-type: none"> <li>• Pump running too slow - check the pump rotating speed; choose correct rotation speed;</li> <li>• Impurities are in the pressure limiting valve - take valve apart and clean the valve;</li> <li>• Wrong pump - choose correct pump;</li> </ul>
Jaws or winch movements are too fragmentary	<ul style="list-style-type: none"> <li>• Air in hydraulic system - check the oil level and remove air from system;</li> <li>• Air in hydraulic system - check if there are any obstructions or leaks in the inlet side; remove.</li> <li>• Pump is not working properly - fix the pump;</li> </ul>
Jaws descend by themselves	<ul style="list-style-type: none"> <li>• Faulty control valve - replace/fix the valve;</li> <li>• Oil leakage - fix the leakage and check cylinder seals</li> </ul>
Hose ruptures (loss of pressure in the hydraulic fluid or in the event of a rupture in the hydraulic hoses or pipes running between the controls and the log lifter)	<ol style="list-style-type: none"> <li>1. switch off the tractor's engine and lower the load to the ground immediately</li> <li>2. Disconnect the hydraulic flow;</li> <li>3. Repair the rupture;</li> <li>4. Take care to clean up any oil that has run down to the ground. Hand in waste to an appropriate waste management facility.</li> </ol>
Hose ruptures (main pressure hose from the tractor to the controls)	<ol style="list-style-type: none"> <li>1. stop the oil flow by disconnecting the lever control for the tractor's hydraulic outlet or by switching off the tractor's engine with the stop button;</li> <li>2. take care to clean up any oil that has run down to the ground.</li> </ol>

### 3. ROUTINE MAINTENANCE AND ADJUSTMENTS

Service and maintenance must be carried out regularly in order to guarantee problem free, economical use.

If you need assistance for repair or maintenance works, contact to your dealer who can assist you to find best services.

It is important to inspect the equipment. If you see any defects, you must fix them immediately. Worn bolts and screws can cause a risk of breakages when under load. If cracks are discovered on the log lifter, operations must be stopped immediately. Damaged hoses must be replaced at once. Special care must be taken about hydraulic hoses because leaking hydraulic fluid entails a risk of accidents and can result in serious environmental damage.

For disruption free operation, oil must be changed and filters must be replaced at the specified intervals.

**NOTE:** Failure to comply with the Fors WM instruction manual invalidates all the machine's guarantees. Regular, correct maintenance is a precondition for the guarantees applying.

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### 3.1. SCHEDULE

Although there are no operational restrictions on the log lifter when used for the first time, it is recommended to check the following mechanical items:

#### After operating 1 and 10 hour(s):

1. Ensure the machine is in safe condition before checking any components;
2. Check for leaks in the hydraulic system;
  - a. Inspect connectors and fittings for leaks;
  - b. Inspect hoses for damage. Replace the hoses if rubbed;
4. Check all hydraulic cylinders for smooth operation;
5. Check that all nuts, bolts and other fasteners are tight. Retighten to their specified torque.

After that go to the normal servicing and maintenance schedule.

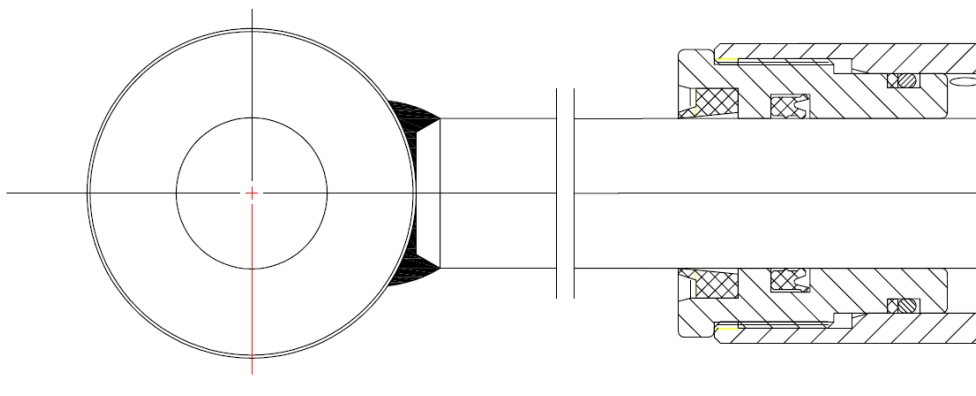
#### Daily inspections

- Check all bolted joints and tighten all loosened bolts;
- Operate the log lifter's complete movement pattern to ensure that all functions are intact;
- Check cylinder seals. If necessary, replace;
- If necessary, lubricate the machine.

### 3.2. PROCEDURES

#### Replacing seals

- If a cylinder seal is damaged, replace all the seals in the cylinder.
- Take care when replacing seals to ensure you do not damage them during installation. If possible, engage the specified service personnel for any work on hydraulic functions.



- Once the old seals have been removed, carefully clean the cylinder and piston rod before installing the new seals;

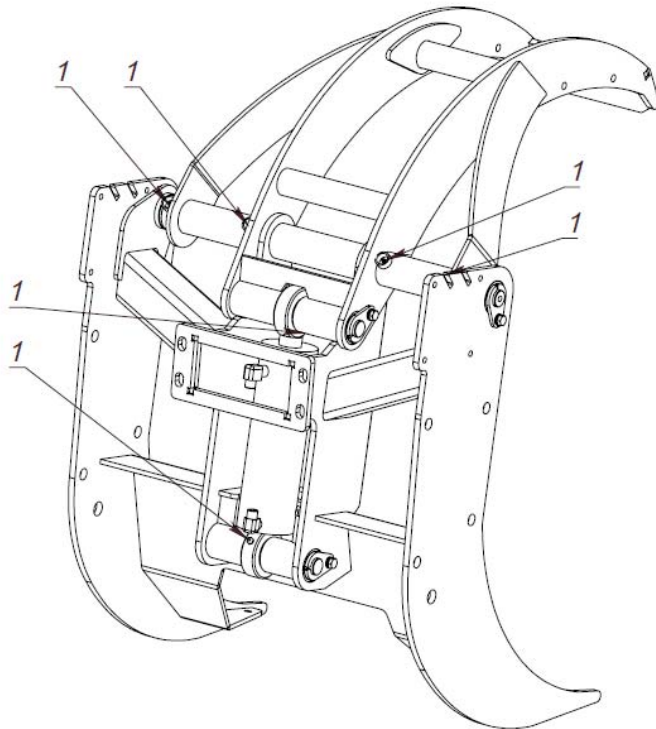
Original instruction

- Lubricate the new seals with hydraulic fluid;

**Lubrication**

**NOTE:** When changing oil, collect the oil in a safe manner. Never release oil onto the ground. This is prohibited by law. Oil and grease must by law also be disposed of at an authorised location.

Lubricating interval (work hours) - **20h**. Lubrication nipples:



Recommended hydraulic oils: UTTO or STOU SAE10W/30, SAE 32, SAE 46.

**Tightening torques**

The tightening torque (Mv) in Nm for untreated, oiled steel screw joints when using a torque wrench or screwdriver/wrench with torque control. Torque range max. ± 5%. Metric coarse threads. **All bolts must be tightened after 10 hours of operation.**

Thread M	Property class according to SS-ISO 898/1		
	8.8	10.9	12.9
5	5.7	8.1	9.7
6	9.8	14	17
8	24	33	40
10	47	65	79
12	81	114	136
14	128	181	217

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16	197	277	333
18	275	386	463
20	385	541	649
22	518	728	874
24	665	935	1120

### Hydraulic system

When replacing hydraulic components, this should be carried out in such a way that no dirt enters the system. Use a lint-free cloth or rag when cleaning. If possible, engage trained service personnel for any work on the machine's hydraulic functions;

**NOTE:** Never mix oils of different types or makes in the system.

- Do not start the tractor without having disconnected the hydraulic pressure to the log lifter;
- Support the log lifter during maintenance work to ensure that no parts are dependent on the hydraulic cylinder;
- Clarify the fault before carrying out repair work, so that you do not open the hydraulic system unnecessarily;
- The log lifter's hydraulic hoses and pipes must always be kept in good condition. Replace the relevant components in the event of any defects. Defects in hoses, for example, can result in a high-pressure jet of oil that can penetrate skin on contact and cause a serious infection. If this occurs, consult a doctor immediately.

**NOTE:** When the hydraulic system is brought back into use following repair work, be extremely carefully. Air in the system can result in unforeseen crane movements. You should therefore bleed the system by operating all the cylinders to their limit positions a few times.

**NOTE:** When using the hydraulic functions, you should use them gently. Do not operate them at full speed from one position to the next. This can cause damage to hydraulic seals and other parts.

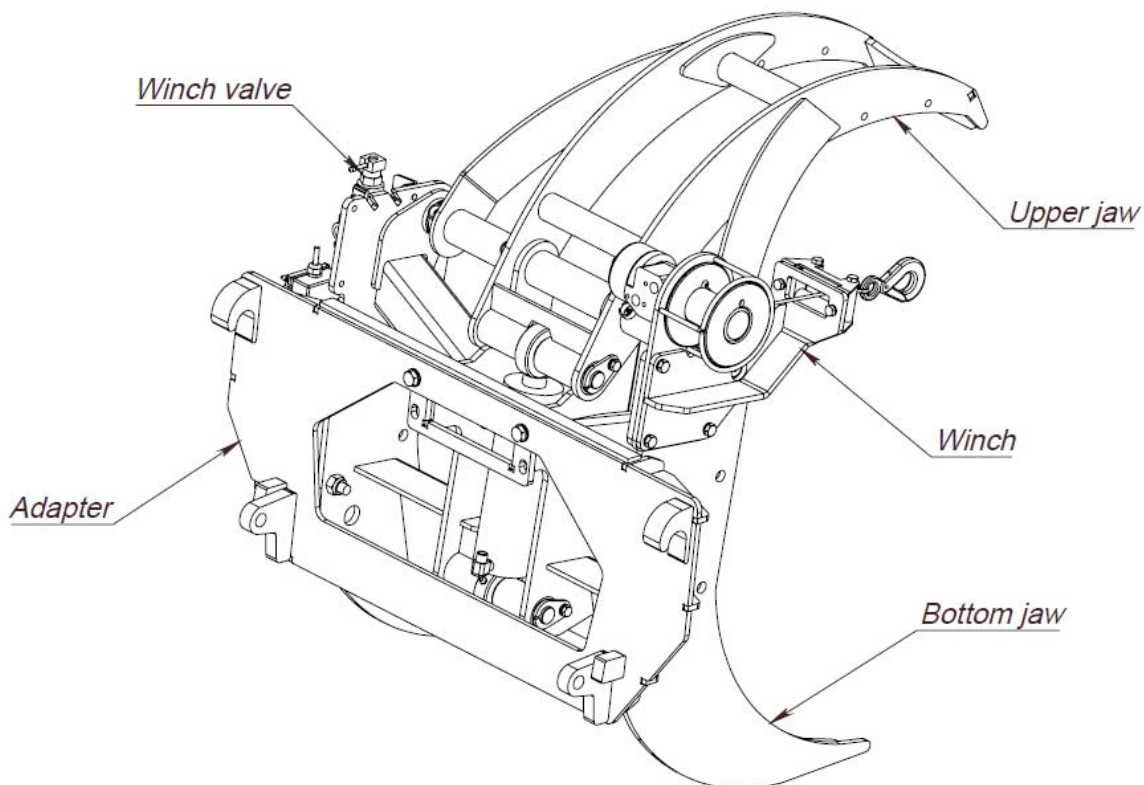
## 4. TECHNICAL INFORMATION

### 4.2. DESIGN OF THE PRODUCT

FARMA has developed a complete timber grip for a variety of tractors with front loaders, wheel loaders, telescopic loaders and other small machines with standard brackets.

LL 1000 allows you to move logs simply and easily, on the farm, in the forest, in the terminal. Log lifter has a max opening of 100 cm and can hold up to 50 cm logs. To add extra value to your log lifter, we offer RW 600 winch as an extra option. Using the winch you can pull the material from 30 metres. The winch is controlled remotely, which is included with the necessary valve installation. It is easily retrofitted. In normal use it can lift 600 kg.

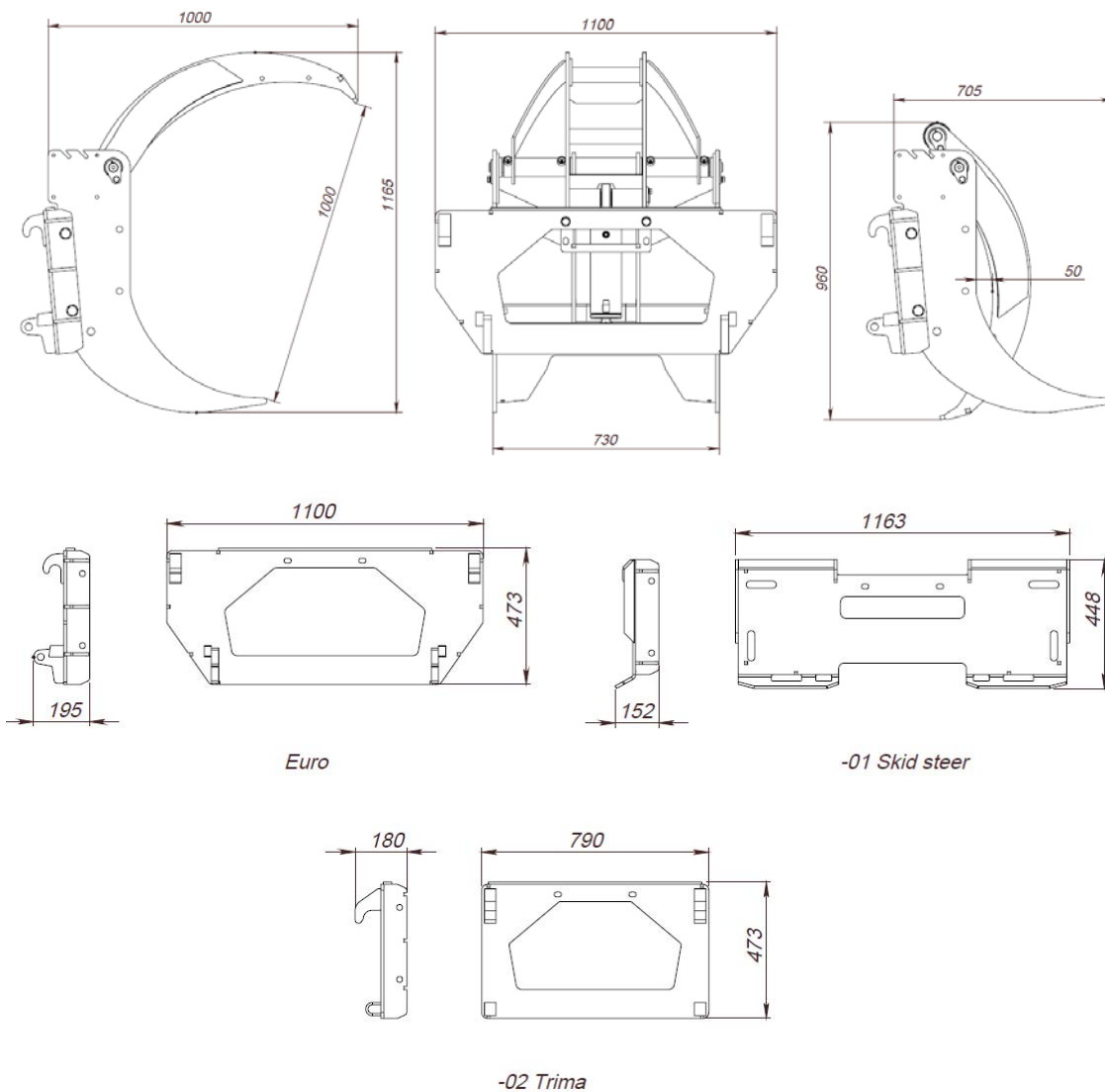
The timber grip is available with various bolted brackets which are interchangeable, if necessary.



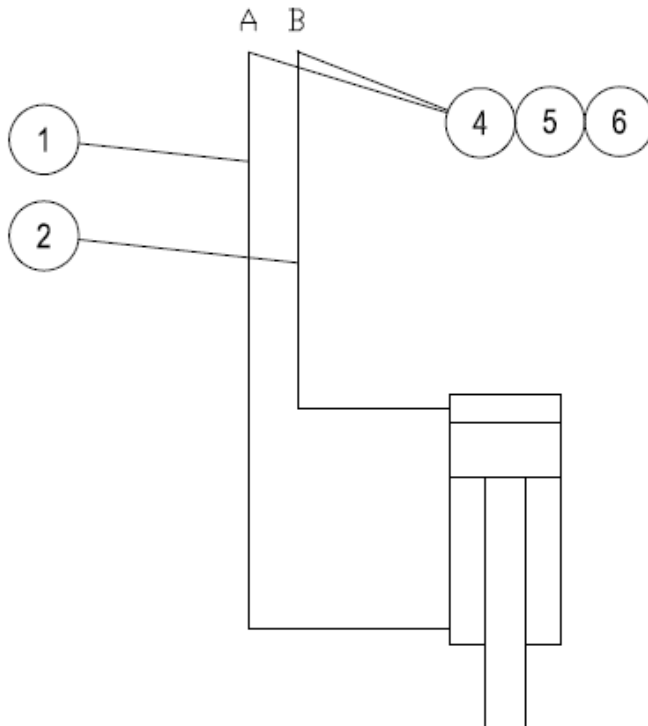
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**4.3. TECHNICAL DATA**
*(information about the determination of the total mass, the axle loads, the tyre load carrying capacity and the necessary minimum ballasting)*

Technical data	Log lifter
Max. grapple opening	1 000 mm
Max. height	1 165 mm
Max. pressure	190 bar
Recommended oil flow	20-40 l/min
Weight without fitting	165 kg

**4.4. DIMENSIONAL DRAWING**


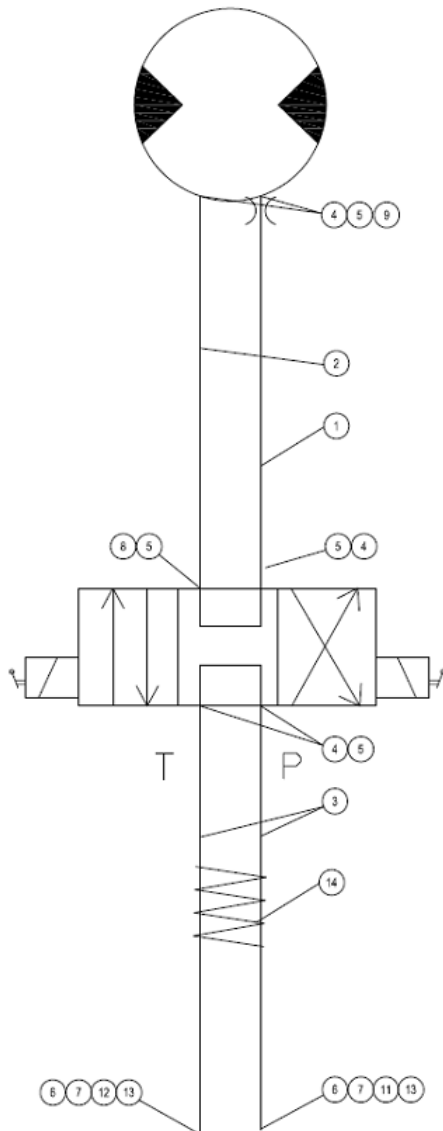
Original instruction

**4.5. HYDRAULICAL SYSTEM**
**4.5.1. Hydraulic scheme, Log Lifter**

**Hydraulic scheme Farma log lifter, FMWH00039**

ITEM NO.	PART NUMBER	DESCRIPTION	TYPE	QTY.
1	FMWH00729	Hose	42010606-3/8''(1550)-42020806	1
2	FMWH00730	Hose	42010606-3/8''(1370)-42020806	1
4	914584	Rubber seal	5601-01-08	2
5	914570	Bayonet coupling	5550-02-08 M1/2'' MALE ISO-A	2
6	914579	Dust cover	5550-04-08 Black	2

Original instruction

## 4.5.2. Hydraulic scheme, Winch


**Hydraulic scheme Farma log lifter winch, FMWH00039\_1**

ITEM NO.	PART NUMBER	DESCRIPTION	TYPE	QTY.
1	FMWH00726	Hose	42030606-3/8"(1770)-42030606	1
2	FMWH00727	Hose	42030606-3/8"(1720)-42030606	1
3	FMWH00728	Hose	42030606-3/8"(870)-42020806	2
4	914716	Straight nipple	7002-06-06	4
5	914582	Rubber seal	5601-01-06	8
6	914570	Bayonet coupling	5550-02-08 M 1/2" MALE ISO-A	2
7	914579	Dust cover	5550-04-08 Black	2
8	914705	Cartridge nipple	7090-06-06	1
9	FMWP06833	Straight nipple (choke)	7092-06-08	1

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11	925032	Label No2 Pump Red		1
12	925034	Label No3 Tank Blue		1
13	922227	Heat-shrink tubing	SRIF 25,4-12,7	0,18m
14	930320	Spiro pipe	32x3	1m

## 5. ADDITIONAL INFORMATION

### 5.2. TRANSPORTATION

Ensure that none of the additional equipment connected to the log lifter can't cause accidents during transport. Close claws for transport position. You must always maintain control of the unit in all situations. Traffic rules are there to be followed. Comply with the applicable legislation.

### 5.3. WARRANTY

The guarantee will only be valid if the reseller as well the buyer signs the Warranty certificate and delivery instruction.

The warranty is valid for 12 months from the delivery date when the product is delivered from the dealer to the end customer. AS Fors MW provides maximum 6 month warranty on the storage of the product at the dealers. Thus, the warranty can extend to 18 months at most but last no longer than 12 months after that the product has been delivered from the dealer to the end customer.

### 5.4. SCRAPPING

All metal parts are recyclable and should when time comes be handed over to a recycler.

### 5.5. PART LIST

Only genuine spare parts may be used during repair and maintenance work. Spare parts could be found from spare parts catalog available on request.